NOV 0 2 1994

CDM FEDERAL PROGRAMS CORPORATION
a subsidiary of Camp Dresser & McKee Inc.

October 31, 1994

Mr. Chuck Schwer
Sites Management Section
Hazardous Materials Management Division
Department of Environmental Conservation
Agency of Natural Resources
103 South Main Street
West Building
Waterbury, VT 05671-0404

SUBJECT: EPA Contract No.: 68-W9-0045
Work Assignment No.: 23-1JZZ
Final Site Inspection Prioritization Report
Catamount Dyers
Bennington, Vermont
TDD No.: 9305-22-ACX
CERCLIS No.: VTD057019796

DOCUMENT NO.: 7710-023-ST-BMPT

Dear Mr. Schwer:

One copy of the Final Site Inspection Prioritization Report for Catamount Dyers, in Bennington, Vermont is enclosed. If you have any comments or questions regarding this submittal, please contact me at (617) 742-2659.

Very truly yours,

CDM FEDERAL PROGRAMS CORPORATION

Tara Abbott Taft
ARCS I Work Assignment Manager

Approved:

Myron S. Rosenberg, Ph.D., P.E.
ARCS I Program Manager

TAT/lbc

Attachment

cc: Sharon Hayes, EPA Work Assignment Manager (letter only)
Don Smith, EPA Vermont Site Assessment Manager (letter only)
Julia Nault, CDM ARCS I Deputy Program Manager (letter only)
Luke Chechowitz, CDM Site Manager
Document Control File

ARCS I

Final Site Inspection Prioritization Report

Catamount Dyers

Bennington, Vermont

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY, Region I
Waste Management Division
Boston, MA

Work Assignment No.:	23-1JZZ
EPA Region:	I
CERCLIS No.:	VDT057019796
TDD No.:	9305-22-ACX
Contract No.:	68-W9-0045
Document No.:	7710-023-FR-BMPV
Prepared By:	CDM Federal Programs Corporation
CDM Work Assignment Manager:	Tara Abbott Taft
Telephone No.:	(617) 742-2659
EPA Work Assignment Manager:	Sharon Hayes
Telephone No.:	(617) 573-5709
Date Prepared:	October 31, 1994

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Final Site Inspection Prioritization Report
Catamount Dyers
Bennington, Vermont

CERCLIS No.VTD057019796
TDD No. 9305-22-ACX
Work Assignment No. 23-1JZZ
Document No. 7710-023-FR-BMPV

INTRODUCTION

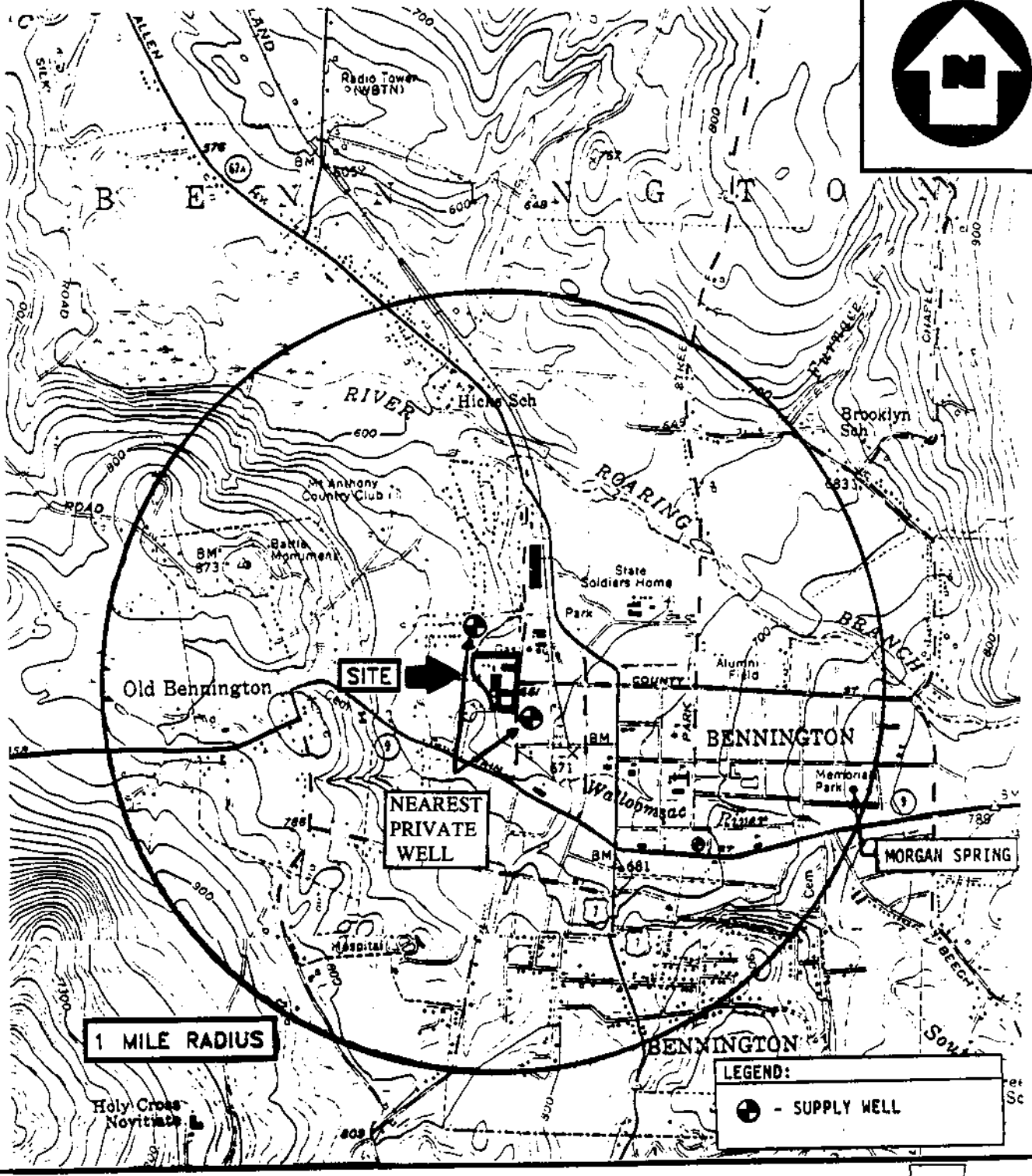
The CDM Federal Programs Corporation (CDM) Alternative Remedial Contracting Strategy (ARCS) team was requested by the U.S. Environmental Protection Agency (EPA) Region I Waste Management Division to perform a Site Inspection Prioritization (SIP) of the Catamount Dyers property in Bennington, Vermont. Tasks were conducted in accordance with the ARCS Contract No. 68-W9-0045, the SIP scope of work dated September 3, 1992, and technical specifications provided by the EPA under Work Assignment No. 23-1JZZ, which was issued to CDM on September 22, 1992. A Preliminary Assessment (PA) was prepared by the Vermont Agency of Environmental Conservation (VTAEC) on January 25, 1989. On the basis of the information provided in the PA report, the Catamount Dyers Site Inspection was initiated. A Site Inspection (SI) report was prepared by NUS Corporation/Field Investigation Team (NUS/FIT) on May 1, 1990. Updated information encountered during the SIP process is included in this report. Relevant text from the SI report is presented in this report in a smaller font.

Background information used in the generation of this report was obtained through file searches conducted at the Vermont Department of Environmental Conservation (VTDEC), telephone interviews with town officials, conversations with persons knowledgeable of the Catamount Dyers property and conversations with other federal, state, and local agencies. Additional information was collected during the CDM onsite reconnaissance on October 20, 1993 and environmental sampling on March 29, 1994.

This package follows the guidelines developed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended, commonly referred to as Superfund. However, these documents do not necessarily fulfill the requirements of other EPA regulations such as those under the Resource Conservation and Recovery Act (RCRA) or other federal, state, or local regulations. SIPs are intended to provide a preliminary screening of sites to facilitate EPA's assignment of site priorities. They are limited efforts and are not intended to supersede more detailed investigations.

SITE DESCRIPTION

Catamount Dyers is a former occupant of several buildings which are part of the Holden-Leonard Mill Complex located at 180-200 Benmont Avenue in Bennington, Bennington County, Vermont [6,35]. The geographical coordinates are Latitude 42° 53′ 05″N, Longitude 73° 11′ 11″W (see Figure 1: Location Map) [48]. The Holden-Leonard Mill Complex property consists of approximately 14 acres and is bordered to the north by residential and commercial



BASE MAP IS A PORTION OF THE FOLLOWING 7.5' TOPOGRAPHIC MAP QUADRANGLES:
POWNAL, VT 1954; BENNINGTON, VT 1954

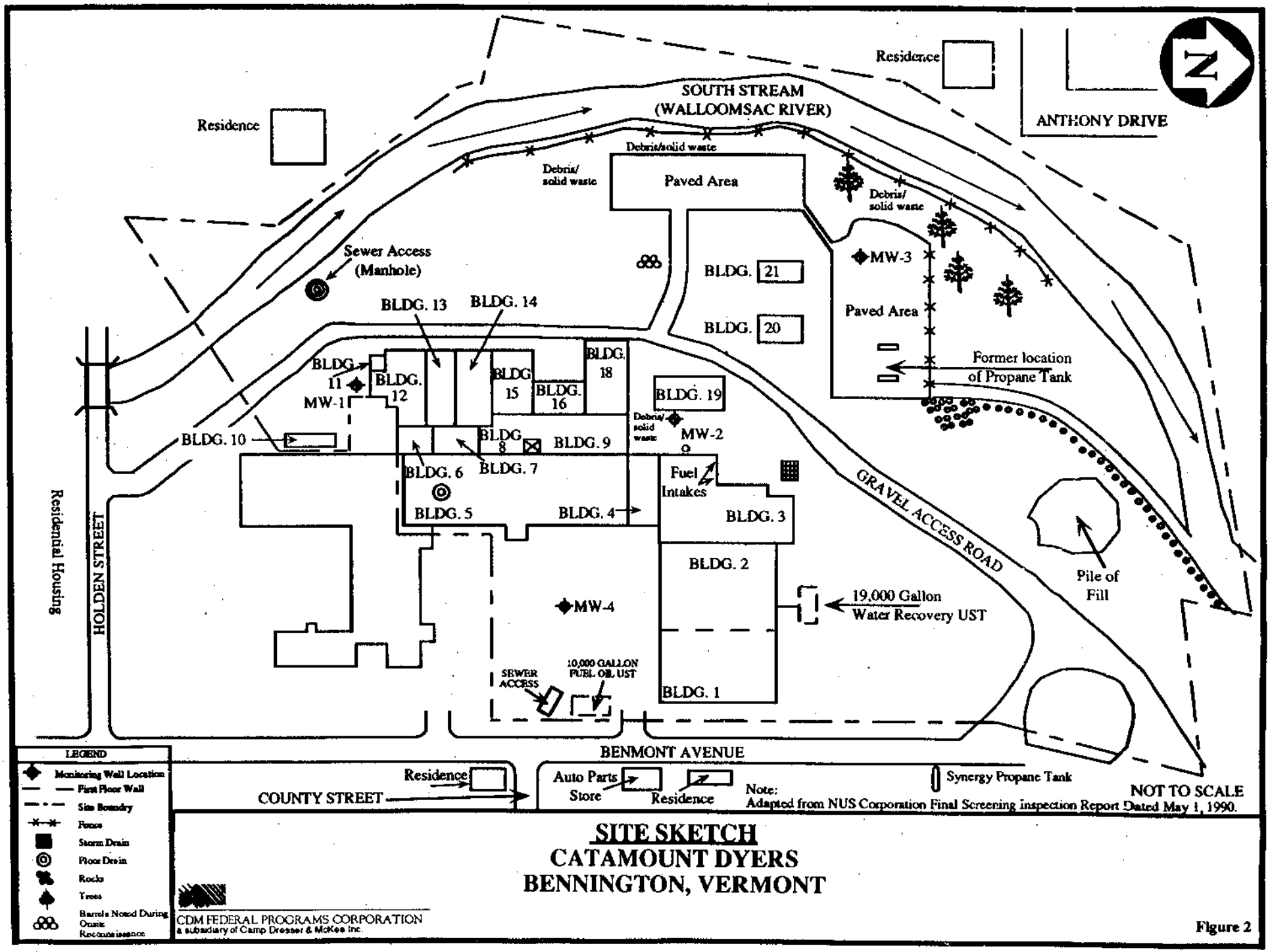
LOCATION MAP
CATAMOUNT DYERS
BENNINGTON, VERMONT

CDM FEDERAL PROGRAMS CORPORATION
a subsidiary of Camp Dresser & McKee Inc.

Figure 1

property, to the south by commercial property and Holden Street, to the west by residential property on the western bank of the Walloomsac River, and to the east by Benmont Avenue (see Figure 2: Site Sketch) [3,6,35]. The general topography of this property, as well as the urban area of Bennington, is generally flat [6,48]. Overland storm water runoff flows westerly into the Walloomsac River at various locations along the eastern bank of the Walloomsac River [6]. Property access is unrestricted [6]. A gravel road starts at the northernmost Holden-Leonard Mill entrance and continues between Buildings 19 and 20 on the west side of the mill building and on to Holden Street to the south [6,35]. Two large paved areas are situated to the west and north of Buildings 20 and 21 [6,35]. A concrete retaining wall is present along the eastern bank of the Walloomsac River starting approximately 120 feet from Building 14 and ending approximately 30 feet from the northwestern corner of the northernmost paved area [6]. Chain-link fencing, approximately 6 feet high, is embedded in this structure [6]. A box-shaped concrete structure, formerly the headgate to a wheelhouse that underlies Buildings 5 and 27, is located 90 feet from the southwestern corner of Building 12 [6,44]. Building 27 is not part of the Catamount Dyers Property and is not labeled on Figure 2. A stone retaining wall runs along the tailrace, mostly filled, that flows under the property via a subterranean iron conduit [6,44]. The iron conduit and headgate are part of what remains from the period when water from the Walloomsac River was used to power textile manufacturing operations at the mill [44]. Water would flow into the headgate to the wheelhouse and then would be returned to the Walloomsac River through the iron conduit and tailrace [44].

The Holden-Leonard Mill Complex consists of 28 buildings in total, most of which are attached to the main mill building (Building No. 5) [6]. The mill property has been divided into two separately owned properties since 1951 [44]. The Vermont Economic Development Authority (VEDA) (formerly Vermont Industrial Development Authority (VIDA)) now owns the Catamount Dyers property [3,21]. Figure 2 indicates only the numbers of Buildings 1 through 21 which are part of the property that is subject to this investigation. The commercial property to the south at 160 Benmont Avenue, owned by James Comi, includes seven other buildings that were part of the original Holden-Leonard Mill [6,21,44]. These buildings are also attached to the main mill building [3,6,44]. The buildings on the property formerly occupied by Catamount Dyers are either vacant or used for cold storage [6]. At the time of the CDM onsite reconnaissance on October 20, 1993, the fourth floor of Building 5 was leased by Mace Security International, Inc. (MSI) for storage of packaged security products [6]. Johnson Controls was utilizing the first floor of Building 2 for storage of car batteries [6]. The Bennington Chamber of Commerce was utilizing the first floor of Building 1 for cold storage of general items [6]. Building 4 was being leased by Frasier Construction for the storage of building supplies, Building 12 was being utilized by an aerospace equipment manufacturer for cold storage, and the town of Bennington was using Buildings 20 and 21 for cold storage [6].



SITE SKETCH
CATAMOUNT DYERS
BENNINGTON, VERMONT

CDM FEDERAL PROGRAMS CORPORATION
a subsidiary of Camp Dresser & McKee Inc.

Figure 2

OPERATIONAL AND REGULATORY HISTORY AND WASTE CHARACTERISTICS

The original Holden-Leonard Mill (Bldg.5) was constructed in 1865 for purpose of manufacturing textiles. The mill was home to a succession of textile firms over the next 85 years. In 1949, the last of these manufacturers ceased operations. Over the course of the first 85 years, the 27 other buildings that now make up the mill complex were constructed. The last addition was made sometime around 1940 [35].

The complex has been divided into two separately-owned pieces since 1951. The larger property (on which this investigation was conducted, see Figure [2]) was purchased in 1951 by Ben-Mont Papers, Inc. For the next two decades, Ben-Mont used the facility for the manufacture of wrapping paper. Hazardous waste shipment manifests on file with the VTANR [Vermont Agency of Natural Resources] indicate that Ben-Mont's wastes included methanol, toluene, ethyl acetate, methyl ethyl ketone, xylene, sodium hydroxide, naphtha, isopropyl alcohol, and waste inks. These manifests were available only for shipments which occurred after 1981 [35].

Catamount Dyers occupied buildings 1, 2, 3, 4, and 5 from 1971 until the company went bankrupt in 1984. The first floors of these buildings were the site of the dyeing processes. The upper floors were used for storage only. From 1984 to 1986, the property was owned by the non-profit Bennington County Industrial Corporation (BCIC) [35].

Catamount Dyers' dyeing operations consisted of the finishing of knitted fabrics, a process that included atmospheric and pressure dyeing, chemical treating, and heat setting. Chemicals used for these processes included acids, caustics, water conditioners, solvents, and dyes . . .Catamount Dyers generated approximately 200,000 gallons/day of liquid waste, which was discharged to the municipal sewage treatment facility; the company also generated a large quantity of empty drums and other chemical containers. Catamount Dyers did not have any RCRA status [35].

Catamount Dyers reportedly used water from the Walloomsac River and the Bennington Water Department for coolant in their dyeing operations [6]. This water was then discharged to the public sewer system [6]. Wastewater from the public sewer system in Bennington is processed at the municipal sewage treatment facility [10].

The discharge of liquid waste to the treatment plant [Bennington Municipal Sewage Treatment Plant - Catamount Dyers did not conduct any treatment of their wastewater [32]] was conducted under Vermont Wastewater Treatment Facilities Temporary Pollution Permit No. VT-4-1117. NUS/FIT was unable to determine the period of time during which the discharge was permitted. Monthly monitoring of the discharge was conducted by a private contractor under the Vermont Wastewater Permit Program. Under this program, samples were analyzed for pH, biological oxygen demand (BOD), total suspended solids (TSS), and lead. Empty drums and containers were stored onsite prior to their final disposal. The metal drums were reportedly returned to the supplier. Cardboard drums and plastic liners from acid barrels were reportedly sent to the Bennington Landfill [34].

The VTAEC [predecessor to the VTDEC] Hazardous Materials Management Program (HMMP) [predecessor to the Hazardous Materials Management Division (HMMD)] has reported receiving information from anonymous sources, stating that onsite waste disposal occurred during Catamount Dyers' occupancy. However, no documentation has ever been produced that could confirm or support such an allegation [35].

The following is a chronological summary of inspections, legal actions, and other activities involving Catamount Dyers [35]:

- **January 12, 1982** - In response to VT Superior Court Order S159-80Bc, the management of Catamount Dyers reports their intention to install an air pollution abatement system and a water pollution monitoring system, as well as to address an odor problem.

- **July 8, 1982** - Catamount Dyers files for Chapter 11 bankruptcy; due to this bankruptcy, the air and water pollution programs never became operational.

- **February 15, 1884** - VTAEC personnel conduct a site inspection, noting process chemicals remaining onsite.

- **March 13, 1984** - Catamount Dyers converts bankruptcy filing to Chapter 7 liquidation.

- **November 15, 1984** - VTAEC personnel conduct a second site inspection; the property is noted to be in poor condition; chemical containers inside facility (exact location not provided) are observed to be damaged, partially used, or left open; drums are present outside (exact location not provided), filled possibly with oil.

- **November 27, 1984** - Bankruptcy sale conducted at Catamount Dyers; equipment, process dyes, and water conditioners are sold.

- **December 7, 1984** - Chemicals sold at bankruptcy sale removed from site by Colortexil, Inc.

- **December 13, 1984** - Order issued to BCIC and Vermont Industrial Development Authority (VIDA) requiring these parties to develop a closure plan for the Catamount Dyers site and to initiate decontamination and clean-up of the site; a second order is issued to the bankruptcy trustee requiring disposal of all chemicals remaining onsite at a certified disposal facility.

- **December 26, 1984** - Inventory of chemicals remaining onsite conducted by former employee of Catamount Dyers.

- **January 18, 1985** - VTAEC personnel conduct perimeter survey of Catamount Dyers site; approximately 47 drums are noted on the grounds (not specified if inside or out), many empty and/or without labels.

- **January 22, 1985** - HMMP (VTAEC) informs BCIC that no evidence of onsite hazardous waste disposal could be found and that no further action regarding past disposal will be conducted by the state at the Catamount Dyers site.

- **January 25, 1985** - Catamount Dyers Preliminary Assessment completed by VTAEC.

- **January 28, 1985** - Bankruptcy trustee files Notice of Intent to Abandon Property.

- **February 6, 1985** - BCIC informs VTAEC that they will clean all areas of the Catamount Dyers site where chemicals were stored.

- **April 15, 1985** - VTAEC personnel conduct inventory of chemicals remaining onsite.

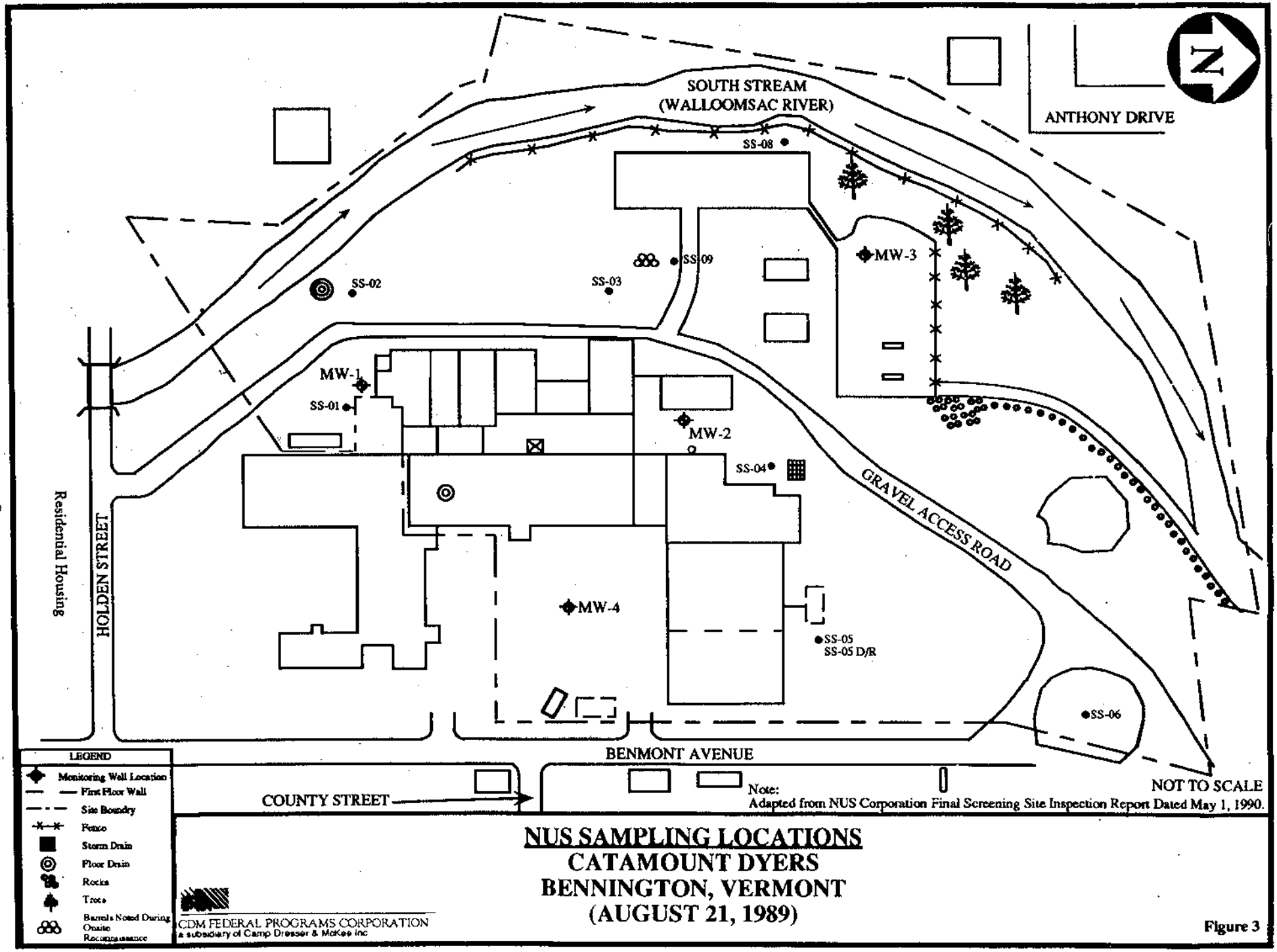
- **May 10, 1985** - VTAEC files Memorandum of Law in opposition to bankruptcy trustee's Notice of Intent to Abandon Property.

- **July 12, 1985** - US Bankruptcy Court filed Memorandum Opinion in favor of bankruptcy trustee.

- **October 25, 1985** - VTAEC personnel confirm BCIC commitment to remove remaining onsite hazardous wastes abandoned by Catamount Dyers; New England Marine Contractors complete consolidation work at site-- empty drums are to be disposed of in Bennington Landfill.

  [35]

Catamount Dyers was entered into CERCLA Information System (CERCLIS) on January 1, 1984 [45]. As was stated previously, the PA was completed by VTAEC on January 25, 1985 [45]. BCIC sold the property to the Southern Vermont Development Corporation (SVDC) in 1986; at which time SVDC commenced renovation of the mill property with the intent to sell commercial condominiums for light industrial purposes [6,35]. SVDC had completed significant reconstruction on Buildings 1 through 5 when the NUS/FIT SI was initiated in 1989 [6,35,45]. An area of contaminated soil was documented to be present by NUS/FIT soil sampling [35]. The locations of the NUS/FIT sampling are spread over approximately 2 acres of the Catamount Dyers property (see Figure 3: NUS Sampling Locations) [35]. This area, which is located on the southwest side of the mill buildings and extends around the buildings to the northernmost property entrance, is identified as a source of contamination and is generally uncontained [6,35].



NUS SAMPLING LOCATIONS
CATAMOUNT DYERS
BENNINGTON, VERMONT
(AUGUST 21, 1989)

CDM FEDERAL PROGRAMS CORPORATION
a subsidiary of Camp Dresser & McKee Inc

Figure 3

Historically, waste from previous mill operations has been stored in several locations on the property [14,23,28,35]. Barrels and other items observed onsite by NUS/FIT in 1989 are outlined below:

> During NUS/FIT's onsite reconnaissance and sampling, conducted on August 21, 1989, the following onsite conditions were noted:
>
> - Four barrels, two each marked "Methanol" and "Darmex" were standing behind building No. 13.
>
> - Two barrels stood just off the western edge of the more northerly paved area, partially obscured by the brush; a small area of black staining was visible at the base of the barrels.
>
> - A number of empty, partially crushed barrels were piled approximately 50 feet south of building No. 21, again, partially obscured by the brush [35].

SVDC contracted a series of remedial investigation activities to a private contractor, O'Brien and Gere Engineers, Inc. (O'Brien & Gere) in order to address the findings presented in the 1990 NUS/FIT Final SI Report [6]. These activities took place between 1990 and 1994 after discussions between SVDC and VTDEC, HMMD personnel [38].

O'Brien & Gere performed a property inspection on October 2, 1990 and observed similar conditions to those noted by NUS/FIT in 1989 [14,23,35]. O'Brien & Gere observed 11 drums of stored waste inside Building 17, most of which had unknown contents, three were empty, and one drum was half full of a tar-like substance [23]. One of these drums was leaking and staining was evident around two drums. Additionally, three 55-gallon drums, one 45-gallon drum, and three 5-gallon pails were observed outside of Building No. 13 [23]. One of the 55-gallon drums contained oil, and the 5-gallon pails contained a tar-like substance [23]. These containers were not leaking, but stained soil was noted nearby. Another half full 55-gallon drum was located between Buildings 20 and 21, and the two drums observed by NUS/FIT on the western edge of the more northerly paved area were noted to still be present [23,35]. One of the 55-gallon drums near the paved area exhibited evidence of leaking from the top and coating the sides of the container as well as creating a large black stain on the soil below [23]. Additionally, volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and several metals were detected in soil, subsurface soil, river sediment, and groundwater sampled by NUS/FIT and O'Brien & Gere [35,37]. O'Brien & Gere collected samples of the nature mentioned above as part of the development of a Remedial Response Plan [37]. In order to collect subsurface soil samples, O'Brien & Gere excavated 15 test pits in random locations on the Catamount Dyers property in October 1990 [37]. The test pits were backfilled with the excavated material [37].

On January 29, 1992 an order was issued to SVDC by VTDEC, HMMD and addressed a number of drums of unknown contents in Building 17 and other drums located outside on the mill property exhibiting evidence of leaking [1,2]. The order consisted of the removal of the above mentioned barrels and any necessary remedial action, such as the excavation and proper

disposal of contaminated soil [1,2]. This was the third order for the removal of drums and unknown wastes issued by the state of Vermont [35]. The first two orders were issued simultaneously on December 11, 1984 in response to the impending abandonment of the property by the bankruptcy trustee for Catamount Dyers [35]. SVDC did not have adequate funds to finance the latest remedial action order by the VTDEC, HMMD; thus, the state contracted a licensed waste hauler, Jetline Services, Inc. (Jetline), to perform this task [14,27]. The actual date of the remedial action was estimated to be June 1992 and included the disposal of drums and containers and reportedly 1,880 pounds of soil contaminated with tetrachloroethene and lead [14,27]. The exact date of this remedial action and location of the excavation to remove the contaminated soil has not been identified as the VTDEC, HMMD has not received pertinent documentation and does not expect to receive formal documentation in the future [14]. VTDEC, HMMD speculates that the areas where contaminated soil was excavated as a result of the remedial action performed by Jetline were the areas where leaking barrels existed as noted by NUS/FIT and O'Brien and Gere [14]. This is the only removal action known to have taken place on the property.

On October 20, 1993, CDM performed an onsite reconnaissance and observed one 55-gallon drum of a substance containing petroleum distillates and a 5-gallon drum containing tetrachloroethene in Building 3 [6]. These containers were reportedly leftover from the building renovation [6]. Additionally, evidence of an area of disturbed soil was not apparent during the March 29, 1994 CDM sampling activities; thus, the location of contaminated soil removed by Jetline in June 1994 could not be identified by CDM [6]. The five empty drums noted by NUS/FIT approximately 50 feet south of Building 21 were still present; however, no other containers identified by NUS/FIT or O'Brien & Gere were observed by CDM [6]. An area to the north of the mill buildings was noted to have been recently filled by sand and gravel from a reconstructed roadbed [6]. A stone retaining wall had been constructed along the tailrace, mostly filled, that flows under the property via a subterranean iron conduit [6,44]. The iron conduit was constructed early in the history of the mill for the use of Walloomsac River water to power mill operations [44]. As stated by NUS/FIT no documentation of onsite disposal is available [30,35]. On March 29, 1994, CDM conducted onsite surficial soil and sediment sampling activities [6,7]

In May 1994 VEDA foreclosed upon SVDC [21]. SVDC had exhausted its funds and could not honor the loan provided by VEDA for investigative activities and was not able to sell any industrial units [6]. VEDA has had a financial interest in the property through BCIC and also SVDC [6]. Presently, MSI, which leases a portion of the mill, is interested in purchasing the property [6].

Table 1 summarizes the types of potentially hazardous substances that have been disposed of, used, or stored on the property. The inventories of chemicals and waste left onsite and their generic classifications, included as an attachment in the NUS/FIT 1990 Final SI Report, were used to identify potential wastes left on the property subsequent to the bankruptcy of Catamount Dyers. The drums mentioned above are also included.

TABLE 1

Hazardous Waste Quantity for Catamount Dyers

Substance	Approximate Quantity or Volume/Area	Years of Use/Storage	Years of Disposal	Source Area
drums containing unknown liquids	14 55-gallon 1 45-gallon 3 5-gallon	6	Not applicable (NA)	Building 17 and various locations on the property
solvents (i.e., tetrachloroethylene)*	750 gallons	unknown	NA	unspecified
petroleum distillates*	110 gallons	unknown	NA	unspecified
pesticides*	20 gallons	unknown	NA	unspecified
dyes*	3005 gallons 160 pounds	unknown	NA	unspecified
chlorinated hydrocarbons*	110 gallons	unknown	NA	unspecified
copper sulfate*	600 pounds	unknown	NA	unspecified
aromatic hydrocarbons*	55 gallons	unknown	NA	unspecified

* - Generic constituents of wastes and product left onsite from Catamount Dyers operation.

[23,35]

CDM performed onsite surficial soil sampling and Walloomsac River sediment sampling on March 29, 1994 as part of SIP activities, the details of which are outlined in the following section. CDM's sampling event was performed in accordance with the Task Work Plan (TWP) dated March 1994 [7]. All analytical data met the analytical objectives stated in the TWP [8,9]. A complete listing of analytical results, sample quantitation limits (SQLs), and sample detection limits (SDLs) are included in Attachments A and B. SQLs and SDLs are concentrations at which an analyte is not detected and are reported by the laboratories performing the chemical analyses. The organic and inorganic analytical results were reviewed according to EPA Region I Tier II data validation protocol [8,9].

Eleven other CERCLIS sites are located within 4 miles of the Catamount Dyers property: Bennington Municipal Sanitary Landfill (VTD981064223, 2.5 miles north), Jard Company, Inc. (VTD048741741, 1.5 miles north), Route 7 Contamination (VTD988368510, 0.8 mile northwest), Percy Property (VTD988366589, approximately 1.5 miles north), Tansitor Electronics (VTD000509174, 3.5 miles west), Burgess Brothers Landfill (VTD003965415, 3 miles east), Vermont Tissue (VTD059373316, 3 miles northwest), Kocher Drive Dump (VTD982542797, 0.9 miles north-northeast), Schmelzer Corporation Property (former) (VTD988367017), Johnson Controls Battery Group (VTD001780725, 1.5 miles northwest), and Eveready Battery Co. (VTD002065597, approximately 1.5 miles east) [45].

RCRA handlers near the Catamount Dyers property include Agway Energy Products (VTD988375218), Ben Mont Corporation (VTD002207504), Tansitor Electronics, Inc. (VTD000509174, 3.5 miles west), Union Carbide (VTD002065597), Bijur Lubrication Corporation (VTD019092766), Jard Company, Inc. (VTD048141741), Johnson Controls Battery Group (VTD001780725, 1.5 miles northwest), and Merrill Transport Co. (VTD000509430) [46]. Catamount Dyers is not listed in the RCRA Information System [46].

WASTE/SOURCE SAMPLING

In 1989, NUS/FIT initiated an SI in order to determine whether the Catamount Dyers property required further CERCLA investigation [35]. Soil sampling of various locations throughout the property was conducted as part of this investigation on August 21, 1989 [35,36]. NUS/FIT collected eight soil samples at depths ranging from 1 to 2.5 feet and encountered black soils with small stones, and medium to fine grained gravel (see Figure 3: NUS Sampling Locations) [35]. The NUS/FIT soil samples were analyzed by EPA Contract Laboratory Program (CLP) Routine Analytical Services (RAS) for Target Compound List (TCL) organics and Target Analyte List (TAL) inorganics [35]. These analyses include VOC analysis, semivolatile organic compound (SVOC) analysis, pesticide/polychlorinated biphenyl (PCB) analysis, metals, and cyanide analyses. The analytical results from these samples revealed the presence of numerous PAHs and metals above reference sample concentrations [35]. These contaminants were detected consistently throughout six of the seven source samples collected [35]. Phenanthrene, fluoranthene, and pyrene were detected at concentrations ranging from 1,600, 1,700, and 2,000 micrograms per kilogram (μg/kg) to 19,000, 21,000, and 22,000 μg/kg, respectively [35]. These contaminants among others were detected at the lowest concentrations in sample SS-05 and at the highest concentrations in sample SS-01 [35]. No PAHs were detected in sample SS-02; however, 14 metals were present above reference sample concentrations. These metals, detected in sample SS-02, include aluminum, arsenic, calcium, chromium, cobalt, copper, iron, lead, and mercury [35]. In addition, sample SS-01 contained all of the above listed metals analytes above reference values with the exception of aluminum and iron [35].

> During NUS/FIT sampling activities, the sample collected from sample location SS-06 was designated as the background sample. However, a review of the analytical data indicated that the lowest concentrations of compounds and elements were almost exclusively detected in the

sample from location SS-08. Therefore, a decision was made by NUS/FIT to use the sample collected from location SS-08 as the reference sample [35].

Only two volatile organic compounds, trichloroethene (TCE) and methylene chloride, were detected at concentrations exceeding three times the reference value. There is no documented use of these compounds by Catamount Dyers. TCE has been identified as a potential waste from dyeing processes [35].

All of the semi-volatile organic compounds listed ... are polycyclic aromatic hydrocarbons (PAH). Concentrations for individual semi-volatile compounds on ... range from 1,100 parts per billion (ppb) to 22,000 ppb (pyrene, location SS-01), or three to 64 times the reference value. The PAHs detected in the samples are commonly derived from coal tar. Acenaphthene, anthracene, and naphthalene are used in the manufacture and preparation of dyes. The compound 2-methylnaphthalene is often used in combination with naphthalene. Acenaphthene was detected in samples from six locations, though in only one (SS-01) was the concentration greater than three times the reference value. Anthracene was detected in samples from seven locations; four of the samples had concentrations four to fifteen times the reference value. Naphthalene and 2-methylnaphthalene were detected in samples from five locations, though never at concentrations greater than three times the reference value [35].

Between seven and thirteen inorganic elements were detected at each sample location at concentrations three to fifty-seven times the reference value. The only exception is location SS-09, at which no elements were detected at concentrations greater than three times the reference value. Some inorganic elements, such as chromium, copper and lead, are found in dyeing wastes from the textile industry (Black & Veatch, 1980). Concentrations for these elements listed on ... range as high as 230 J parts per million (ppm) (chromium, SS-03). The highest concentrations of these three elements were all detected in the sample collected from location SS-03 (copper, 68.8 J ppm; lead 117 J ppm). The highest concentrations of zinc (197 J ppm) and barium (206 ppm) were also detected in the sample from this location. These concentrations range from five to fifty-seven times the reference value. [34]

TABLE 2

Sample Summary: Catamount Dyers
Soil Samples Collected by NUS Corporation
August 21, 1989

Sample Location No.	Sample #/ Traffic Report #	Time (hrs)	Sample Type/Depth	Sample Source
SS-01	22442 AQ214 MAL960	1005	Grab/ Depth = 2 feet	25 feet west of Building 10
SS-02	22443 AQ215 MAL961	1051	Grab/ Depth = 2.5 feet	49 feet west of Building 11
SS-03	22444 AQ216 MAL962	1145	Grab/ Depth = 2 feet	38 feet northwest of Building 18
SS-04	22445 AQ217 MAL963	1317	Grab/ Depth =1 feet	21 feet north of fuel intakes on Building 3
SS-05	22446 AQ218 MAL964	1452	Grab/ Depth = 1.5 feet	24 feet north of Buildings 1 & 2
SS-05R/D	22447 AQ219 MAL965	1458	Grab/ Depth = 1.5 feet	24 feet north of Building 1 & 2
SS-06	22448 AQ220 MAL966	1652 (VOA) 1701 (Comp.)	Composite/ (Grab for VOA) Depth = 1.5 feet	Background sample; near "For Lease" sign, northeast corner of property
SS-07	22449 AQ221	Not Doc.	Soil blank	Rinsate
SS-08	22450 AQ222 MAL967	1554	Grab/ Depth = 2.5 feet	Near river, 100 feet west of Building 21
SS-09	22451 AQ223 MAL968	1621	Grab/ Depth = 2.5 feet	50 feet south of Building 21

AQ = Prefix for organic traffic report
MAL = Prefix for inorganic traffic report
[35,36]

TABLE 3

Summary of Analytical Results from Soil Samples for Catamount Dyers Collected by NUS Corporation on August 21, 1989

Sample Location No.	Compound/Analyte	Concentration	Reference Concentration	Comments
Matrix: Surficial Soil (Organics, µg/kg)				
SS-01	Trichloroethene	63 J	5 U	>12 X RSQL
	Acenaphthene	2,300 J	340 UJ	>6 X RSQL
	Fluorene	2,100 J	340 U	>6 X RSQL
	Phenanthrene	19,000	340 U	>55 X RSQL
	Anthracene	5,200	340 U	>15 X RSQL
	Fluoranthene	21,000	340 U	>61 X RSQL
	Pyrene	22,000	340 U	>64 X RSQL
	Benzo(a)anthracene	11,000	340 U	>32 X RSQL
	Chrysene	13,000	340 U	>38 X RSQL
	Benzo(b)fluoranthene	14,000	340 U	>41 X RSQL
	Benzo(k)fluoranthene	5,000	340 U	>14 X RSQL
	Benzo(a)pyrene	12,000	340 U	>35 X RSQL
	Indeno(1,2,3-cd)pyrene	3,600	340 U	>10 X RSQL
	Dibenz(a,h)anthracene	1,100	340 U	>3 X RSQL
	Benzo(g,h,i)perylene	3,200	340 U	>9 X RSQL
SS-03	Phenanthrene	6,100	340 U	>17 X RSQL
	Anthracene	1,600	340 U	>4 X RSQL
	Fluoranthene	6,700	340 U	>19 X RSQL
	Pyrene	8,800	340 U	>25 X RSQL
	Benzo(a)anthracene	4,100	340 U	>12 X RSQL
	Chrysene	4,500	340 U	>13 X RSQL
	Benzo(b)fluoranthene	5,600	340 U	>16 X RSQL
	Benzo(k)fluoranthene	1,600	340 U	>4 X RSQL
	Benzo(a)pyrene	4,700	340 U	>13 X RSQL
	Indeno(1,2,3-cd)pyrene	2,400	340 U	>24 X RSQL

TABLE 3
(Continued)

Sample Location No.	Compound/Analyte	Concentration	Reference Concentration	Comments
SS-03 (Continued)	Benzo(g,h,i)perylene	2,100	340 U	>6 X RSQL
SS-04	Methylene chloride	60 J	5 U	12 X RSQL
	Phenanthrene	5,000	340 U	>14 X RSQL
	Anthracene	1,600	340 U	>4 X RSQL
	Fluoranthene	5,300	340 U	>15 X RSQL
	Pyrene	5,200	340 U	>15 X RSQL
	Benzo(a)anthracene	3,200	340 U	>9 X RSQL
	Chrysene	3,000	340 U	>8 X RSQL
	Benzo(b)fluoranthene	5,000	340 U	>14 X RSQL
	Benzo(k)fluoranthene	1,400	340 U	>4 X RSQL
	Benzo(a)pyrene	3,500	340 U	>10 X RSQL
	Indeno(1,2,3-cd)pyrene	1,500	340 U	>4 X RSQL
	Benzo(g,h,i)perylene	1,200	340 U	>3 X RSQL
SS-05	Phenanthrene	1,600 J	340 U	>4 X RSQL
	Fluoranthene	1,700 J	340 U	5 X RSQL
	Pyrene	2,000 J	340 U	>5 X RSQL
	Benzo(b)fluoranthene	1,400 J	340 U	>4 X RSQL
	Benzo(a)pyrene	1,100 J	340 U	>3 X RSQL
SS-05D	Phenanthrene	6,000 J	340 U	>17 X RSQL
	Anthracene	2,100 J	340 U	>6 X RSQL
	Fluoranthene	4,700 J	340 U	>13 X RSQL
	Pyrene	8,200 J	340 U	>24 X RSQL
	Benzo(a)anthracene	3,200 J	340 U	>9 X RSQL
	Chrysene	3,100 J	340 U	>9 X RSQL
	Benzo(b)fluoranthene	2,600 J	340 U	>7 X RSQL
	Benzo(k)fluoranthene	1,300 J	340 U	>3 X RSQL
SS-06	Benzo(a)pyrene	2,300 J	340 U	>6 X RSQL
	Indeno(1,2,3-cd)pyrene	1,100 J	340 U	>3 X RSQL

TABLE 3
(Continued)

Sample Location No.	Compound/Analyte	Concentration	Reference Concentration	Comments
SS-06 (Continued)	Phenanthrene	3,300	340 U	>9 X RSQL
	Fluoranthene	3,500	340 U	>10 X RSQL
	Pyrene	3,100	340 U	>9 X RSQL
	Benzo(a)anthracene	1,800	340 U	>5 X RSQL
	Chrysene	2,200	340 U	>6 X RSQL
	Benzo(b)fluoranthene	2,300	340 U	>6 X RSQL
	Benzo(k)fluoranthene	1,100	340 U	>3 X RSQL
	Benzo(a)pyrene	2,400	340 U	>7 X RSQL
	Benzo(g,h,i)perylene	1,300	340 U	>3 X RSQL
Matrix: Surficial Soil (Inorganics, mg/kg)				
SS-01	Arsenic	12.2 J	1.30 J	>9 X REF
	Calcium	28,200	588	>47 X REF
	Chromium	16.2 J	4.00 J	>4 X REF
	Cobalt	10.7 J	3.50 J	>3 X REF
	Copper	47.2 J	4.30 J	>10 X REF
	Lead	38.6 J	4.40 J	>8 X REF
	Magnesium	9,430	1,080 J	>8 X REF
	Mercury	0.43 J	0.10 UJ	>4 X RSDL
	Nickel	35.2 J	3.10 U	>6 X RSDL
	Sodium	577 J	170 J	>3 X REF
	Vanadium	66.2 J	4.60 J	>14 X REF
	Zinc	91.8 J	2.07 U	>5 X RSDL
SS-02	Aluminum	11,400	2,640	>4 X REF
	Arsenic	4.50 J	1.30 J	>3 X REF
	Calcium	5,210	588	>8 X REF
	Cobalt	11.6 J	3.50 J	>3 X REF
	Chromium	13.7 J	4.00 J	>3 X REF

TABLE 3
(Continued)

Sample Location No.	Compound/Analyte	Concentration	Reference Concentration	Comments
SS-02 (Continued)	Copper	22.2 J	4.30 J	>5 X REF
	Iron	25,900	7,980	>3 X REF
	Lead	13.8 J	4.4 J	>3 X REF
	Magnesium	5,830 J	1,080 J	>5 X REF
	Manganese	637 J	186 J	>3 X REF
	Sodium	736 J	170 J	>4 X REF
	Vanadium	14.7 J	4.60 J	>3 X REF
	Zinc	78.6 J	2.07 U	>4 X RSDL
SS-03	Arsenic	5.70 J	1.3 J	>4 X REF
	Barium	206	34.6	>5 X REF
	Calcium	9,010	588	>15 X REF
	Chromium	230 J	4.00 J	>57 X REF
	Copper	68.8 J	4.30 J	16 X REF
	Lead	117 J	4.40 J	>26 X REF
	Magnesium	3,350 J	1,080 J	>3 X REF
	Sodium	540 J	170 J	>3 X REF
	Zinc	197 J	2.07 U	>10 X RSDL
SS-04	Arsenic	6.50 J	1.30 J	>5 X REF
	Calcium	25,900	588	>44 X REF
	Chromium	32.7 J	4.00 J	>8 X REF
	Copper	34.1 J	4.30 J	>7 X REF
	Lead	57.6 J	4.40 J	>13 X REF
	Magnesium	10,500 J	1,080 J	>9 X REF
	Vanadium	17.5 J	4.60 J	>3 X REF
	Zinc	178 J	2.07 U	>9 X RSDL
SS-05	Arsenic	5.10 J	1.30 J	>3 X REF
	Calcium	13,000	588	>22 X REF
	Chromium	71.7 J	4.00 J	>17 X REF

TABLE 3
(Continued)

Sample Location No.	Compound/Analyte	Concentration	Reference Concentration	Comments
SS-05 (Continued)	Copper	44.8 J	4.30 J	>10 X REF
	Lead	95.1 J	4.40 J	>21 X REF
	Magnesium	4,660 J	1,080 J	>4 X REF
SS-05D	Zinc	117 J	2.07 U	>6 X RSDL
	Arsenic	6.30 J	1.30 J	>4 X REF
	Calcium	28,700	588	>48 X REF
	Chromium	61.5 J	4.00 J	>15 X REF
	Copper	42.2 J	4.30 J	>9 X REF
	Lead	85.6 J	4.40 J	>19 X REF
	Magnesium	12,500 J	1,080 J	>11 X REF
	Zinc	60.6 J	2.07 U	>3 X RSDL
SS-06	Arsenic	8.50 J	1.30 J	>6 X REF
	Barium	104	34.6	>3 X REF
	Calcium	6,360	588	>10 X REF
	Chromium	103 J	4.00 J	>25 X REF
	Copper	59.7 J	4.30 J	>13 X REF
	Lead	116 J	4.40 J	>26 X REF
	Magnesium	3,510 J	1,080 J	>3 X REF
	Zinc	110 J	2.07 U	>6 X RSDL

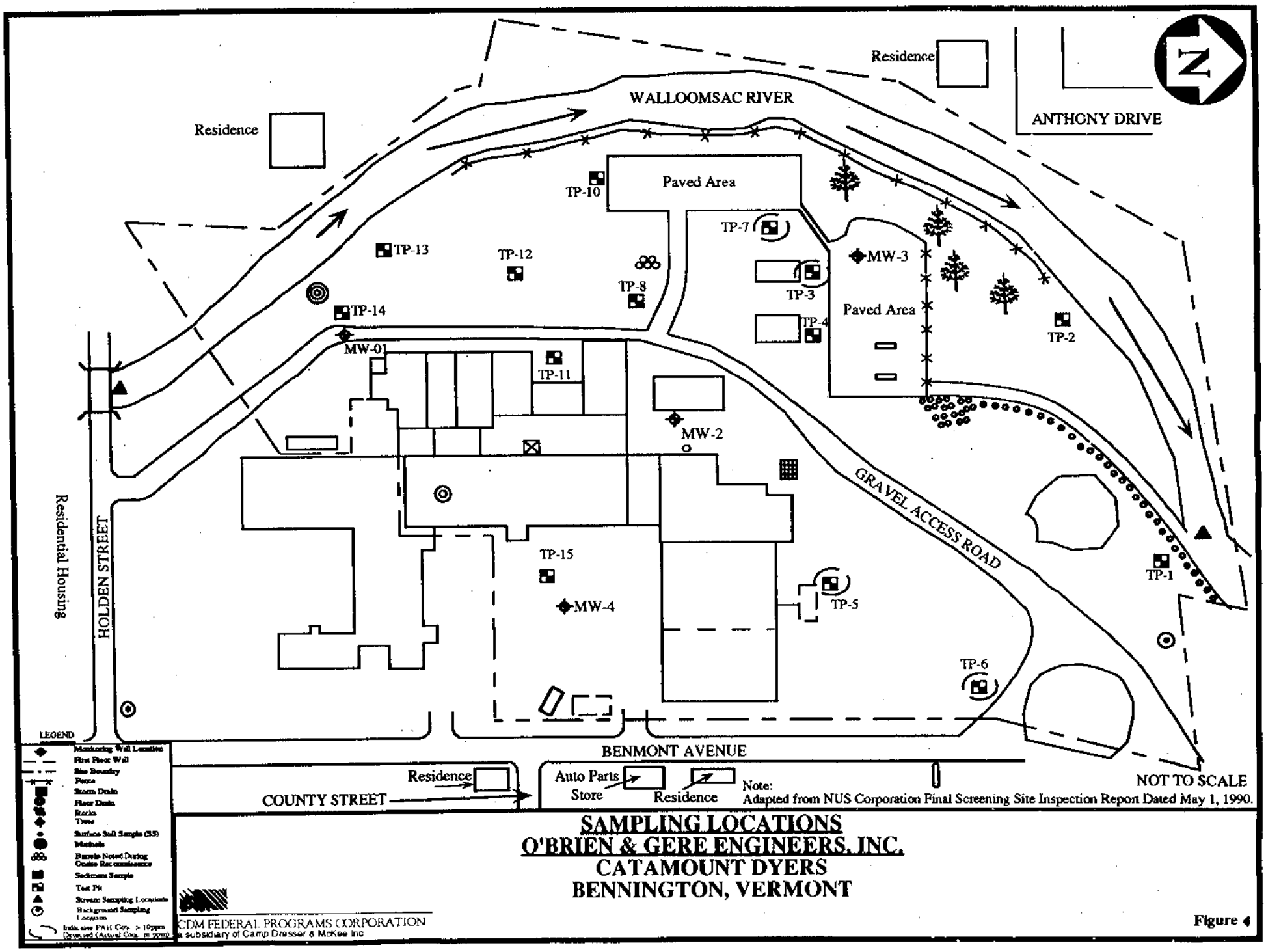
REF = Reference Concentration
RSQL = Reference Sample Quantitation Limit
RSDL = Reference Sample Detection Limit
J = Quantitation is approximate due to limitations identified during the quality control review.
U = Indicates the compound/analyte was analyzed for, but was not detected. The nondetect value is reported.
UJ = The reported quantitation/detection limits are estimated.
µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram

[35]

SVDC, after meeting with the VTDEC regarding the status of the Holden-Leonard Mill Complex (Catamount Dyers property), contracted a consultant in order to identify the nature and extent of contamination present at the Holden-Leonard Mill Complex [37,38]. The contractor to SVDC, O'Brien & Gere, initiated excavation activities in October 1990 as part of the development of a Remedial Response Plan for the Holden-Leonard Mill [37]. The vertical extent of contamination detected in the NUS/FIT samples was to be investigated by collecting subsurface soil samples from depths ranging from 4 to 10 feet from 15 test pits situated in random locations on the property (see Figure 4: Sampling Locations O'Brien & Gere Engineers, Inc.) [24,37]. Soil encountered during the excavation of these test pits ranged from brown fine to coarse sand to light brown, compact till [24]. Excavation was generally terminated when groundwater was encountered. O'Brien & Gere noted the presence of a tar-like substance at approximately 3 feet during the excavation of test pits 7 and 9 and black fill described as cinders below the surficial soil from test pits 8, 11, 12, and 13 [24]. PAHs were detected in samples collected from test pits 3, 5, 6, 7, and 11 [24]. Naphthalene was detected at concentration of 1,551 μg/g (parts per million (ppm)) in test pit 7, as well as anthracene (9.5 μg/g), benzo(a)pyrene (1.1 μg/g), benzo(k)fluoranthene (19.8 μg/g), chrysene (1.3 μg/g), and phenanthrene (51.8 μg/g) [24,37]. No soil from the test pit excavation was removed from the property [34]. Test pit holes were backfilled with excavated material [37]. O'Brien & Gere also collected two background surficial soil samples, two Walloomsac River sediment samples, two river water samples, and installed four monitoring wells, each to a depth of approximately 16 feet [37].

VTDEC was present during the installation of the monitoring wells by O'Brien & Gere and observed the installation of the monitoring well MW-3 [39]. A black, viscous, tar-like material was described as being present in the soil boring from this well (depth unknown) [36]. These wells were sampled on April 11 and 18, 1991 [37]. Mercury was detected in the groundwater at concentrations ranging from 12.6 parts per billion (ppb) to 42.9 ppb [25,26,37]. The groundwater was analyzed for VOCs using EPA Method 624, SVOCs using EPA Method 625, and dissolved mercury [25,26,37]. No other analytes, with the exception of chloroform, were detected in groundwater samples collected from the four O'Brien & Gere monitoring wells [25,26,37]. PAHs were detected in the background surficial soil samples and river sediment samples collected by O'Brien and Gere at concentrations greater than 1 ppm as reported in their Remedial Response Plan, but were not detected in any of the surface water or groundwater samples [37]. Also present in the river sediment samples were arsenic, barium, chromium, lead, mercury, selenium, and cadmium [37].

CDM conducted sampling activities on the Holden-Leonard Mill property on March 29, 1994. As part of these activities, surficial soil samples from the western side of the mill buildings were collected and analyzed by EPA CLP RAS for TCL organic compounds and TAL inorganics (See Figure 5: CDM Sampling Locations) [6]. The surficial soil sampling locations were selected in order to confirm the analytical results obtained by NUS/FIT in 1989. Soil samples were taken at an average depth of 10 inches [6]. The soil encountered was generally dark loam with organic matter interspersed [6]. The samples collected and locations are identified in Table 4 and the analytical results greater than the reference concentrations are presented in Table 5. Analyte concentrations less than half the SQL were not included in Table 5 due to significant uncertainty in quantitated results [8,9].


Residence
WALLOOMSAC RIVER
Residence
ANTHONY DRIVE
N
TP-10
Paved Area
TP-7
TP-13
TP-12
MW-3
TP-8
TP-3
TP-14
Paved Area
TP-4
TP-2
MW-01
TP-11
MW-2
GRAVEL ACCESS ROAD
Residential Housing
HOLDEN STREET
TP-15
TP-1
MW-4
TP-5
TP-6
LEGEND
Monitoring Well Location
First Floor Wall
Site Boundry
Fence
Storm Drain
Floor Drain
Rocks
Trees
Surface Soil Sample (SS)
Manhole
Burrows Noted During Onsite Reconnaissance
Sediment Sample
Test Pit
Stream Sampling Locations
Background Sampling Location
Indicates PAH Conc. > 10ppm Detected (Actual Conc. in ppm)
BENMONT AVENUE
Residence
Auto Parts Store
Residence
COUNTY STREET
Note:
Adapted from NUS Corporation Final Screening Site Inspection Report Dated May 1, 1990.
NOT TO SCALE
SAMPLING LOCATIONS
O'BRIEN & GERE ENGINEERS, INC.
CATAMOUNT DYERS
BENNINGTON, VERMONT
CDM FEDERAL PROGRAMS CORPORATION
a subsidiary of Camp Dresser & McKee Inc
Figure 4

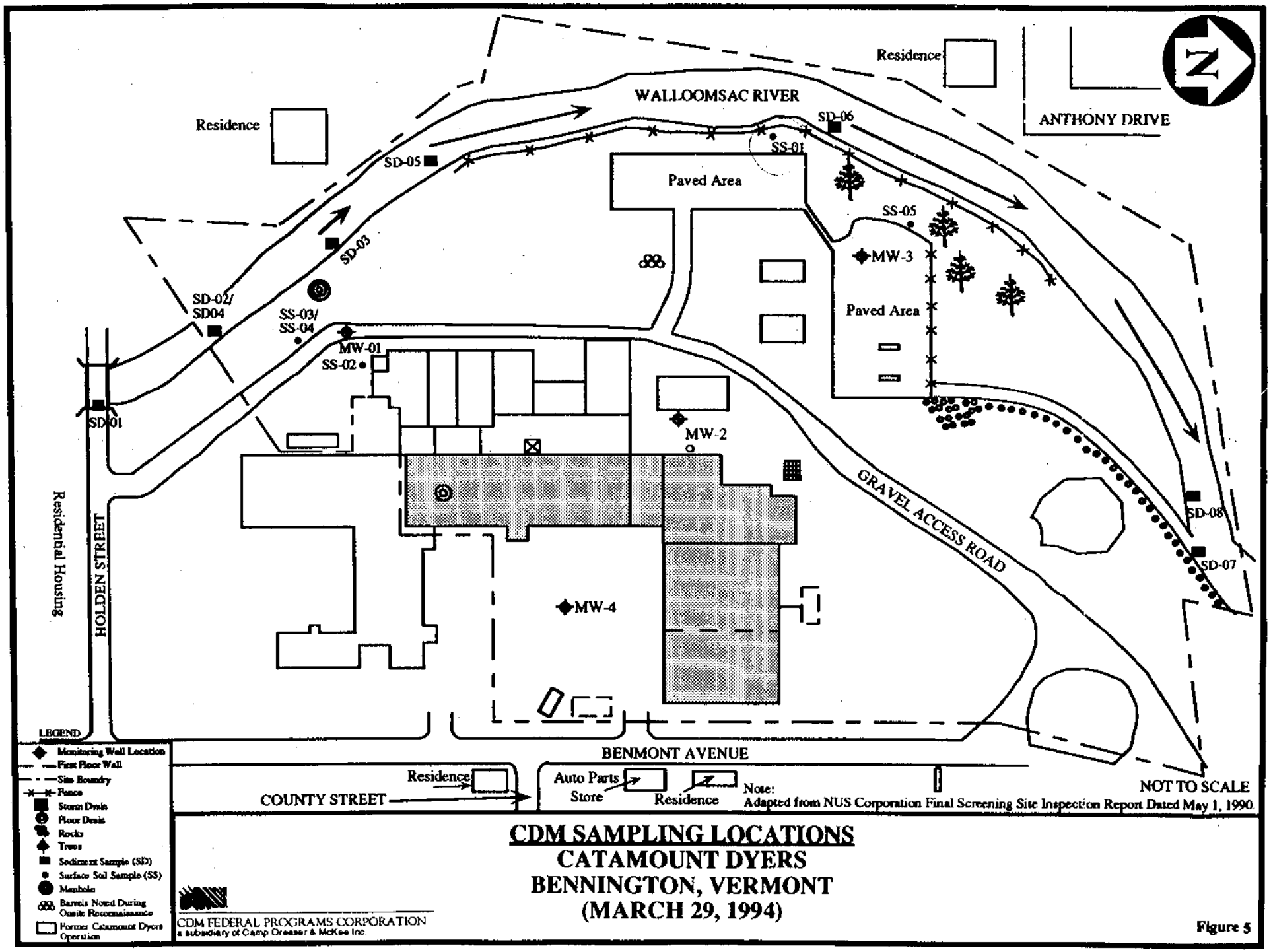

Residence
WALLOOMSAC RIVER
Residence
ANTHONY DRIVE
SD-06
SS-01
SD-05
Paved Area
SS-05
MW-3
SD-03
SD-02/
SD04
SS-03/
SS-04
Paved Area
MW-01
SS-02
SD-01
MW-2
GRAVEL ACCESS ROAD
SD-08
SD-07
Residential Housing
HOLDEN STREET
MW-4
LEGEND
Monitoring Well Location
First Floor Wall
Site Boundry
Fence
Storm Drain
Floor Drain
Rocks
Trees
Sediment Sample (SD)
Surface Soil Sample (SS)
Manhole
Barrels Noted During Onsite Reconnaissance
Former Catamount Dyers Operation
BENMONT AVENUE
Residence
COUNTY STREET
Auto Parts Store
Residence
Note:
Adapted from NUS Corporation Final Screening Site Inspection Report Dated May 1, 1990.
NOT TO SCALE
CDM SAMPLING LOCATIONS
CATAMOUNT DYERS
BENNINGTON, VERMONT
(MARCH 29, 1994)
CDM FEDERAL PROGRAMS CORPORATION
a subsidiary of Camp Dresser & McKee Inc.
Figure 5

TABLE 4

Sample Summary: Catamount Dyers
Soil Samples collected by CDM
on March 29, 1994

Sample Location	CLP Sample #	Time (hrs)	Comments	Sample Source
SS-01	AEY34 (O) MAEQ25 (I)	0820	Background sample; grab	Surficial soil from Catamount Dyers property; 8 feet west of southernmost paved area
SS-02	AEY35 (O) MAEQ26 (I)	0915	Grab	Surficial soil from Catamount Dyers property; 2 feet from southern wall of Building 12
SS-03	AEY36 (O) MAEQ27 (I)	0930	Grab	Surficial soil from Catamount Dyers property; 3 feet west of gravel access road near southern boundary of property
SS-04	AEY37 (O) MAEQ28 (I)	0945	Duplicate sample; grab	Surficial soil from Catamount Dyers property; duplicate of SS-03
SS-05	AEY38 (O) MAEQ29 (I)	1650	Grab	Surficial soil from Catamount Dyers property; 2 feet west of northern corner of northernmost paved area
EB-SS	AEY30 (O) MAEQ38 (I)	1100	Equipment Blank	Surficial Soil collection equipment - DI Water
TB032994	AEY28 (O)	0830	Trip Blank	DI Water

O = Organic: CLP Target Compound List VOA, SVOA, and Pesticides/PCBs
I = Inorganic: CLP Target Analyte List Metals and Cyanide
DI = Deionized

[6]

TABLE 5

Summary of Analytical Results from Soil Samples for Catamount Dyers Collected by CDM on March 29,1994

Sample Location No.	Compound/Analyte	Concentration	Reference Concentration	Comments
Matrix: Surficial Soil (Organics, µg/kg)				
SS-02	Acenaphthene	150,000 J	450 UJ	330 X SQL
	Fluorene	98,000 J	450 U	220 X SQL
	Phenanthrene	540,000	330 J	1600 X REF
	Anthracene	190,000	59 J	3200 X REF
	Carbazole	91,000	33 J	2800 X REF
	Fluoranthene	620,000 J	560 J	1100 X REF
	Pyrene	530,000 J	560 J	950 X REF
	Benzo(a)anthracene	290,000	330 J	880 X REF
	Chrysene	310,000	440 J	710 X REF
	Benzo(b)fluoranthene	210,000	320 J	660 X REF
	Benzo(k)fluoranthene	260,000 J	300 J	870 X REF
	Benzo(a)pyrene	270,000	280 J	960 X REF
	Indeno(1,2,3-cd)pyrene	140,000 J	160 J	880 X REF
	Benzo(g,h,i)perylene	130,000 J	130 J	1000 X REF
	Endosulfan I	1,600	5.7 U	280 X SQL
	Dieldrin	100	4.5 U	22 X SQL
SS-03	Phenanthrene	2,300 J	330 J	7.0 X REF
	Anthracene	370 J	59 J	6.3 X REF
	Carbazole	220 J	33 J	6.7 X REF
	Di-n-butylphthalate	520 J	30 J	17 X REF
	Fluoranthene	2,700 J	560 J	4.8 X REF
	Pyrene	2,800 J	560 J	5.0 X REF
	Benzo(a)anthracene	1,400 J	330 J	4.2 X REF

TABLE 5
(Continued)

Sample Location No.	Compound/Analyte	Concentration	Reference Concentration	Comments
SS-03 (Continued)	Chrysene	1,400 J	440 J	3.2 X REF
	Benzo(b)fluoranthene	1,400 J	320 J	4.4 X REF
	Benzo(k)fluoranthene	1,100 J	300 J	3.2 X REF
	Benzo(a)pyrene	1,500 J	280 J	5.4 X REF
	Indeno(1,2,3-cd)pyrene	820 J	160 J	5.1 X REF
	Dibenz(a,h)anthracene	340 J	78 J	4.4 X REF
	Benzo(g,h,i)perylene	2,700 J	130 J	21 X REF
	Endosulfan I	8.0	5.7 U	1.4 X SQL
SS-04	Acenaphthene	530 J	450 UJ	1.2 X SQL
	Fluorene	560 J	450 U	1.2 X SQL
	Phenanthrene	8,300 J	330 J	25 X REF
	Anthracene	2,400 J	59 J	41 X REF
	Fluoranthene	11,000 J	560 J	20 X REF
	Pyrene	10,000 J	560 J	18 X REF
	Benzo(a)anthracene	5,400 J	330 J	16 X REF
	Chrysene	5,200 J	440 J	12 X REF
	Benzo(b)fluoranthene	3,500 J	330 J	16 X REF
	Benzo(k)fluoranthene	4,000 J	300 J	13 X REF
	Benzo(a)pyrene	4,200 J	280 J	15 X REF
	Indeno(1,2,3-cd)pyrene	2,200 J	160 J	14 X REF
	Dibenz(a,h)anthracene	940 J	78 J	12 X REF
	Benzo(g,h,i)perylene	1,500 J	130 J	12 X REF
	Endosulfan I	8.8	5.7 U	1.5 X SQL
SS-05	Aroclor 1260	88 J	45 U	2.0 X SQL
Matrix: Surficial Soil (Inorganics, mg/kg)				
SS-02	Beryllium	0.38	0.21 U	1.8 X SDL

TABLE 5
(Continued)

Sample Location No.	Compound/Analyte	Concentration	Reference Concentration	Comments
SS-02 (Continued)	Calcium	20,600	6,860	3.0 X REF
	Copper	70.5	22.2	3.2 X REF
	Magnesium	7,910	2,020	3.9 X REF
	Mercury	0.96	0.25 J	3.8 X REF
	Nickel	43.0	9.5	4.5 X REF
	Vanadium	153	15.6	9.8 X REF
SS-03	Calcium	54,500	6,860	7.9 X REF
	Magnesium	18,300	2,020	9.1 X REF
	Mercury	1.3	0.25 J	5.2 X REF
SS-04	Calcium	56,400	6,860	8.2 X REF
	Magnesium	18,700	2,020	9.3 X REF
	Mercury	1.5	0.25 J	6.0 X REF
SS-05	Calcium	86,900	6,860	13 X REF
	Magnesium	35,900	2,020	18 X REF

REF = Reference concentration.
SQL = Reference Sample Quantitation Limit
SDL = Reference Sample Detection Limit
J = Quantitation approximate due to limitations identified in quality control review.
U = Indicates the compound/element was analyzed for, but was not detected. The nondetect value is reported.
UJ = The reported quantitation/detection limits are estimated.
µg/kg = Micrograms per kilogram.
mg/kg = Milligrams per kilogram.

[8,9]

The surficial soil sample analytical results obtained by CDM from sampling activities exhibited similar results to the NUS/FIT sampling data with the detection of numerous PAHs and several inorganic analytes greater than 3 times the background concentrations. No VOCs were detected in the soil samples collected by CDM [9].

Fourteen PAHs at concentrations well above reference sample concentrations and quantitation limits were detected in the source samples [9]. Phenanthrene, anthracene, fluorene, pyrene, benzo(a)anthracene, and chrysene were detected consistently throughout the CDM samples at

concentrations ranging from 1,400 µg/kg to 620,000 µg/kg; 4.2 times reference sample concentrations to 1,100 times reference sample concentrations [9]. The highest concentrations of PAHs detected in the surficial soil samples were detected in sample SS-02 [9]. Significant concentrations and quantities of PAHs were also detected in the 1989 NUS/FIT soil samples and in some of the O'Brien & Gere subsurface soil samples [35,37]. PAHs are derived from the incomplete combustion of organic substances such as coal, petroleum, and wood and can be found in coal tar. Some PAHs are used as intermediaries in the manufacture of dyes and inks: such as acenaphthene, anthracene, and naphthalene [4]. PAHs can also be found in petroleum products and bituminous paving products. Drums containing petroleum distillates and aromatic hydrocarbons were documented to have been used and stored onsite for extended periods of time [23,35]. Another pertinent note is that the textile manufacturers early in the history of the mill used steam as well as water from the Walloomsac River to power the mill operations [44]. Coal is a likely fuel material to have been used to generate steam.

Copper and mercury were detected at significant concentrations in surficial soil samples collected by CDM. The highest concentrations of these two analytes were detected in the surficial soil samples SS-02 and SS-04 (copper 70.5 at milligrams per kilogram (mg/kg) and mercury at 1.5 mg/kg, respectively) [8]. Copper sulfate was documented to be used onsite [35]. This substance was included in the chemical inventories after the bankruptcy of Catamount Dyers [35]. Mercury sulfide (also known as vermillion) is an acutely toxic substance that is used in the manufacture of fancy colored paper [4]. Other analytes detected above 3 times reference sample concentrations in the surficial soil samples were beryllium, calcium, magnesium, nickel, and vanadium [8].

~~SOURCE: FINAL SITE INSPECTION PRIORITIZATION REPORT~~
OCTOBER 31, 1994

GROUNDWATER PATHWAY

The Town of Bennington, Vermont is located in the Vermont Valley, between the Green Mountains to the east and the Taconic Mountains to the west. The valley is underlain by a thick section of carbonate rocks. Bedrock in the Bennington area is generally moderate - to highly - metamorphosed gneiss, schist, phyllite, or marble occurring at an average depth of 30-40 feet, with a maximum depth of approximately 220 feet. Surficial deposits are primarily glacial drift and outwash. The drift is comprised of coarse, stratified sand, and gravel. The outwash is comprised of crudely stratified boulders, lacustrine and alluvial sands, gravels and discontinuous clay layers at relatively shallow depths (10-30 feet) [35].

Although a significant amount of bedrock material such as carbonate rock and dolomite is present, the Bennington area is not considered as karst terrain [17,18]. Some general characteristics of karst terrain are present with the occurrence of caverns in this section of Vermont, but the area as a whole does not fit the classic definition of Karst terrain [17,18].

The town of Bennington draws the entirety of its public drinking water from a surface water source known as Bolles Brook which is outside of the 4-mile radius of the Catamount Dyers property and upstream of the 15-mile surface water pathway [10,48]. The Morgan Spring, a groundwater source, is situated approximately 0.95 mile east of the Holden-Leonard Mill, in the center of Bennington, and is the closest public groundwater drinking water source [10]. The Morgan Spring serves as a backup to the Bennington public drinking water supply [10]. The Morgan Spring has adequate production to supply the entire town of Bennington with drinking water [10]. Presently, the Morgan Spring provides less than 1 percent of the total annual drinking water production and is only activated when the pressure in the drinking water system falls below 85 pounds per square inch [10]. This usually occurs during the summer months and at night when the town's 3,000,000-gallon holding tank is being filled [10].

The Morgan Spring has a very large recharge area extending southwest, south, southeast, east, northeast, and north of the spring [54]. The primary recharge areas are situated to the south and southwest [54]. The Catamount Dyers property is located approximately 0.8 mile northwest and 0.6 mile northeast of one of the two primary recharge areas of the Morgan Spring [54]. The Catamount Dyers property is not situated in a wellhead protection area (WHPA) [54]. Groundwater appears to flow northwest at the Catamount Dyers property (Holden-Leonard Mill) toward the Walloomsac River, beyond the recharge area of Morgan Spring [54]. Table 7 lists the groundwater supply sources which are known to be located within 4 miles of the Catamount Dyers property. Two sources from the 1990 NUS/FIT Final SI Report, the Raney Collector Well and the well utilized by Geannelis' Restaurant, are not included here. The existence, exact use, and location of the Raney Collector Well could not be verified through qualified persons at state and town offices and Geannelis' Restaurant is now supplied with town water [19,20]. An estimated 2,891 people are served by private wells, while an estimated 306 people are served by public groundwater sources within 4 miles of the Catamount Dyers property [6,10,16,32,52,53].

The geological characteristics of the Bennington area, such as the thick glacial outwash and till deposits, are highly permeable to precipitation and allow for a productive shallow aquifer [33,55]. However, in areas where bedrock is encountered, wells must be drilled to depths over 200 feet, indicating the presence of at least two aquifers in the Bennington area [52]. The groundwater at the Catamount Dyers property was documented to be at a depth between 4 and 7 feet [24,37]. The VTDEC classifies the groundwater in the area of Catamount Dyers as Class III [51]. Class III groundwater protection goals are to maintain potable water quality for the aquifer(s), and to prohibit any new or increased discharges of hazardous or radioactive materials [51]. The VTDEC Department of Water Resources has 421 recorded private wells located within 4 miles of the Catamount Dyers' property [52]. The closest of these wells are situated approximately 0.1 mile northwest across the Walloomsac River and approximately 0.1 mile southwest across Benmont Avenue [52]. Both of these wells are bedrock wells over 300 feet in depth and were installed after 1990 [52]. Tables 6 and 7 summarize the public groundwater sources and the estimated drinking water populations served by groundwater sources within 4 miles of the Catamount Dyers property, respectively. CDM estimates that there are three persons per household in Bennington; thus, six people were added to Table 7 for the estimated population served by private wells within 0.25 mile [32]. No groundwater sampling was performed by CDM as part of this investigation.

TABLE 6

Public Groundwater Supply Sources Within 4 Miles of Catamount Dyers

Distance/ Direction from Property	Source Name	Location of Source	Estimated Population Served	Source Type
0.95 mile/ESE	Morgan Spring	Bennington-Memorial Park	37	spring*
2 miles/W	Unabella Trailer Park	West Road, Bennington	60	1 bedrock well
3 miles/ESE	Unabella Trailer Park	Gore Road, Bennington	114	3 bedrock wells
3 miles/NNE	Chapel Trailer Park, Inc., Water System	Bennington	95	spring
3.7 miles/ESE	Harmon Hill Spring	Bennington	inactive	spring

* - Part of a blended system.

[6,10,11,12,13,16,32]

TABLE 7

Estimated Drinking Water Populations Served by Groundwater Sources Within 4 Miles of Catamount Dyers

Radial Distance From Catamount Dyers (miles)	Estimated Population Served by Private Wells	Estimated Population Served by Public Wells	Total Estimated Population Served by Groundwater Sources Within the Ring
0.00 - 0.25	7	-	7
> 0.25 - 0.50	21	-	21
> 0.50 - 1.00	137	37	174
> 1.00 - 2.00	603	60	663
> 2.00 - 3.00	959	209	1168
> 3.00 - 4.00	1164	-	1164
TOTAL	2891	306	3197

[6,10,16,32,51,52,53]

SURFACE WATER PATHWAY

The Catamount Dyers property is a generally flat piece of land with the Walloomsac River situated no more than 90 feet from the southwest corner of Building 12 [6]. Overland runoff and groundwater discharge to the river occur in various locations [6]. All of the CDM sediment sample locations, with the exception of SD-08, were considered the probable points of entry (PPE) for overland runoff; refer to Figure 5 for the CDM sediment sampling locations. The groundwater discharge is evidenced by the presence of a shallow aquifer on the property - encountered at less than 4 feet below ground surface in some areas [6,24]. There are no known drinking water intakes along the 15-mile downstream pathway, but extensive swimming, fishing, and boating take place in the Walloomsac River and the Roaring Branch [6,10]. Catamount Dyers is located in a 100-year flood zone [31].

The Catamount Dyers property is situated adjacent to the Walloomsac River which flows north along the western property boundary [3,48]. The Catamount Dyers property boundary extends to the western bank of the Walloomsac River [3]. The Walloomsac River continues north for approximately 0.5 mile north where it joins the Roaring Branch. At this point the Walloomsac River begins to flow west/northwest [48]. A wetland area is situated approximately 0.2 mile north of Catamount Dyers property on the Walloomsac River before its confluence with the Roaring Branch and is approximately 0.15 mile in length [42,48]. A larger wetland area is

situated approximately 1 mile from the Catamount Dyers property and is approximately 0.8 mile in length [42,48]. The Walloomsac River continues to flow west/northwest to the Vermont/New York State border, and continues west through New York until its confluence with the Hoosic River, north of Hoosick Junction [43,47]. The Hoosic River then flows north for approximately 1.8 miles, where it turns and flows west/southwest to the Hudson River at Stillwater [43]. The 15-mile downstream limit ends approximately 0.9 mile after the confluence of the Walloomsac and Hoosic Rivers [43]. There is a total of approximately 5 miles of wetland frontage along the Walloomsac and Hoosic Rivers [42,43]. A state designated natural area is located approximately 2.5 miles downstream of the Catamount Dyers Property [34].

The Walloomsac River is a significant body of water with a water flow of more than 100 cubic feet per second recorded near North Bennington [41]. A U.S. Geological Survey (USGS) flow gaging station located approximately 3.5 miles downstream of the Catamount Dyers property indicates that the annual mean discharge for the Walloomsac River is 210 cubic feet per second (cfs) [41]. CDM estimates that the flow of the Walloomsac River at the Catamount Dyers property is less than 100 cfs based on the facts that the above mentioned gaging station is a significant distance downstream and the Roaring Branch probably contributes most of the flow that is recorded downstream [41]. The Roaring Branch is a larger body of water than the Walloomsac River is at the Catamount Dyers property location [48].

The Walloomsac River is described as an urban fishery receiving heavy fishing pressure from both the local population and recreational visitors [22]. The river is stocked with brown trout and rainbow trout from a hatchery located downstream [22,49]. The Walloomsac River also sustains a native population of brown trout and is considered a wild trout river [5,22]. Population studies performed in the past revealed a significant population of Brook Trout and brown trout present in the river [5]. The Walloomsac River is designated as Class B waters which exhibit good aesthetic value and provide high quality habitat for fish and wildlife [36]. Vermont Water Quality Standards state that the waters in Vermont will be managed such that the discharge of toxic or radioactive wastes in concentrations that have an adverse impact on human health, or acute or chronic toxicity to fish or wildlife will be prevented [36].

Analytical results from samples collected from the Walloomsac River exhibited concentrations of PAHs, pesticides, PCBs, and metals - particularly mercury - well above reference sample concentrations. CDM sediment samples SD-02 and SD-07 contained the highest concentrations of PAHs. CDM sediment sample SD-07 contained the highest concentrations of PCBs and mercury and was the furthest downstream sample collected [6,7,9]. This sample was collected at the mouth of the tailrace [9]. The sediment sample analytical results for mercury indicate a pattern of generally increasing mercury concentrations, starting with the upstream sediment sample and continuing to the furthest downstream sediment sample [9]. Additionally, the highest concentration of phenanthrene was detected in the sediment sample SD-07. Phenanthrene and mercury were both detected above reference sample concentrations in NUS/FIT soil samples as well as CDM soil samples [8,9,34].

Table 8 summarizes the 15-mile downstream pathway and wetland frontage along the Walloomsac and Hoosic Rivers.

TABLE 8

Water Bodies Within the Surface Water Segment of Catamount Dyers

Surface Water Body	Descriptor	Length of Reach	Flow Characteristics (cfs)[b]	Length of Wetlands
Walloomsac River[a]	Small to moderate stream	0.5 mile	<100	0.15 mile
Walloomsac River	Moderate to large stream	13.7 miles	210	4.3 miles
Hoosic River	Large stream to a river	0.9 mile	>200	0.55 mile

[a] - Portion of Walloomsac adjacent to Catamount Dyers property.
[b] - cubic feet per second

[41,42,43,47,48]

CDM conducted sampling activities on the Holden-Leonard Mill property on March 29, 1994 [6,7]. As part of these activities, river sediment from the Walloomsac River was collected and analyzed by EPA CLP RAS for TCL organic compounds and TAL inorganics (See Figure 5: CDM Sampling Locations) [6]. River sediment sampling was conducted in the Walloomsac River at the PPE for storm water runoff and the confluence of the tailrace that runs underneath the property and the Walloomsac River (see Figure 5: CDM Sampling Locations) [6]. No organic vapor monitor (OVM) hits were recorded during sediment sampling [6]. River sediment was generally black fine silt that gave off an odor upon retrieval from the river [6]. Sample SD-07 was taken at the confluence of the above mentioned tailrace and the Walloomsac River [6]. An oily sheen was observed on the surface of the water upon retrieval of this sample. The samples collected and locations are identified in Table 9 and the analytical results greater than the reference concentrations are presented in Table 10. Analyte concentrations less than half the SQL were not included in Table 10 due to significant uncertainty in quantitated results [8,9]. Refer to Attachments A and B for the complete analytical results.

TABLE 9

Sample Summary: Catamount Dyers
Sediment Samples collected by CDM
on March 29, 1994

Sample Location	CLP Sample #	Time (hrs)	Comments	Sample Source
SD-01	AEY39 (O) MAEQ30 (I)	1615	Background sample; grab	Walloomsac River sediment; under Holden Street bridge
SD-02	AEY40 (O) MAEQ31 (I)	1600	Grab	Walloomsac River sediment; eastern bank, adjacent to cement structure
SD-03	AEY41 (O) MAEQ32 (I)	1520	Grab	Walloomsac River sediment; eastern bank, 8 feet from sewer manhole
SD-04	AEY42 (O) MAEQ35 (I)	1600	Duplicate sample; grab	Walloomsac River sediment; duplicate of SD-02
SD-05	AEY43 (O) MAEQ34 (I)	1430	Grab	Walloomsac River sediment; eastern bank, 90 feet from southwestern corner of Building 5, below 2 outfall pipes
SD-06	AEY44 (O) MAEQ33 (I)	1345	Grab	Walloomsac River sediment; eastern bank, 60 feet west of northwest corner of northernmost paved area, adjacent to concrete retaining wall
SD-07	AEY45 (O) MAEQ36 (I)	1310	Grab	Walloomsac River sediment; eastern bank, confluence of tailrace and Walloomsac River
SD-08	AEY46 (O) MAEQ37 (I)	1230	Grab	Walloomsac River sediment; eastern bank, 35 feet upstream of SS-07
EB-SD	AEY29 (O) MAEQ39 (I)	1330	Equipment Blank	Sediment collection equipment - DI Water
TB032994	AEY28 (O)	0830	Trip Blank	DI Water

O = Organic: CLP Target Compound List VOA, SVOA, and Pesticides/PCBs
I = Inorganic: CLP Target Analyte List Metals and Cyanide
DI = Deionized

[6]

TABLE 10

Summary of Analytical Results from Sediment Samples for Catamount Dyers Collected by CDM on March 29,1994

Sample Location No.	Compound/Analyte	Concentration	Reference Concentration	Comments
Matrix: Sediment (Organics, µg/kg)				
SD-02	Aroclor 1260	49 J	42 U	1.2 X SQL
SD-03	Naphthalene	6,800 J	420 UJ	16 X SQL
	2-Methylnaphthalene	1,900 J	420 U	4.5 X SQL
	Acenaphthene	9,400 J	52 J	180 X REF
	Fluorene	7,400 J	93 J	80 X REF
	Phenanthrene	63,000	1,200	53 X REF
	Anthracene	17,000	200 J	85 X REF
	Carbazole	8,100 J	100 J	81 X REF
	Fluoranthene	60,000 J	1,500 J	40 X REF
	Pyrene	59,000 J	1,200 J	49 X REF
	Benzo(a)anthracene	31,000	580 J	53 X REF
	Chrysene	30,000	730 J	41 X REF
	Benzo(k)fluoranthene	20,000	730 J	41 X REF
	Benzo(b)fluoranthene	24,000	580	41 X REF
	Benzo(a)pyrene	26,000	540	48 X REF
	Indeno(1,2,3-cd)pyrene	13,000	300 J	43 X REF
	Benzo(g,h,i)perylene	9,900	240 J	41 X REF
	Endosulfan II	26 J	4.2 U	6.2 X SQL
SD-04	Benzo(g,h,i)perylene	900 J	240 J	3.8 X REF
	Aroclor 1260	44 J	42 U	1.0 X SQL
SD-05	Phenanthrene	5,300	1,200	4.4 X REF
	Fluoranthene	6,800 J	1,500 J	4.5 X REF
	Pyrene	4,500 J	1,200 J	3.8 X REF

TABLE 10
(Continued)

Sample Location No.	Compound/Analyte	Concentration	Reference Concentration	Comments
SD-05 (Continued)	Benzo(a)anthracene	2,500	580 J	4.3 X REF
	Chrysene	2,800	730 J	3.8 X REF
	Benzo(b)fluoranthene	2,200	580	3.8 X REF
	Benzo(k)fluoranthene	1,800 J	420 J	4.3 X REF
	Benzo(a)pyrene	2,200	540	4.1 X REF
	Indeno(1,2,3-cd)pyrene	1,200 J	300 J	4.0 X REF
	Benzo(g,h,i)perylene	900 J	240 J	3.8 X REF
	Endosulfan I	14	4.6 U	3.0 X SQL
	Aroclor 1260	52	42 U	1.2 X SQL
SD-06	Acetone	180 J	14 U	13 X SQL
	2-Butanone	81 J	14 UJ	5.8 X SQL
	Endosulfan I	7.6 J	4.6 U	1.7 X SQL
	4,4'-DDE	21 J	4.2 U	5.0 X SQL
	4,4'-DDD	71 J	4.2 U	17 X SQL
	4,4'-DDT	31	4.2 U	7.4 X SQL
	gamma-Chlordane	3.6 J	2.2 U	1.6 X SQL
	Aroclor 1260	100 J	42 U	2.4 X SQL
SD-07	Acetone	120	14 U	8.6 X SQL
	2-Butanone	30 J	14 UJ	2.1 X SQL
	Naphthalene	4,000 J	420 UJ	9.5 X SQL
	2-methylnaphthalene	1,700 J	420 U	4.0 X SQL
	Acenaphthylene	3,500 J	25 J	140 X REF
	Acenaphthene	20,000 J	52 J	870 X REF
	Dibenzofuran	5,500 J	38 J	140 X REF
	Fluorene	18,000	93 J	190 X REF
	Phenanthrene	110,000	1,200	92 X REF

TABLE 10
(Continued)

Sample Location No.	Compound/Analyte	Concentration	Reference Concentration	Comments
SD-07 (Continued)	Anthracene	11,000	200 J	55 X REF
	Fluoranthene	33,000 J	1,500 J	22 X REF
	Pyrene	49,000 J	1,200 J	41 X REF
	Benzo(a)anthracene	21,000	580 J	36 X REF
	Chrysene	21,000	730 J	29 X REF
	Benzo(b)fluoranthene	10,000 J	580	17 X REF
	Benzo(k)fluoranthene	12,000 J	420 J	29 X REF
	Benzo(a)pyrene	18,000	540	33 X REF
	Indeno(1,2,3-cd)pyrene	7,100 J	300 J	24 X REF
	Dibenz(a,h)anthracene	3,300 J	120 J	28 X REF
	Benzo(g,h,i)perylene	5,200 J	240 J	22 X REF
	4,4'-DDE	110 J	4.2 U	26 X SQL
	Endrin	31 J	4.2 U	7.4 X SQL
	Aroclor 1242	400	42 U	9.5 X SQL
	Aroclor 1254	1,100	42 U	26 X SQL
SD-08	Xylene	55	2 J	28 X REF
	Naphthalene	2,700 J	420 UJ	6.4 X SQL
	2-Methylnaphthalene	1,100 J	420 U	2.6 X SQL
	Acenaphthene	3,900 J	52 J	75 X REF
	Fluorene	18,000	93 J	190 X REF
	Phenanthrene	4,400	1,200	3.7 X REF
	Pyrene	49,000	1,200 J	41 X REF
	Benzo(a)anthracene	21,000	580 J	36 X REF
	Benzo(k)fluoranthene	1,700 J	420 J	4.0 X REF
	Benzo(a)pyrene	18,000	540	33 X REF

TABLE 10
(Continued)

Sample Location No.	Compound/Analyte	Concentration	Reference Concentration	Comments
Matrix: Sediment (Inorganics, mg/kg)				
SD-02	Mercury	0.29 J	0.07 J	4.1 X REF
	Potassium	339	263 U	1.5 X SDL
SD-03	Copper	41.5	12.9	3.2 X REF
	Mercury	0.73	0.07 J	10 X REF
	Potassium	398	263 U	1.5 X SDL
SD-04	Mercury	0.24	0.07 J	3.4 X REF
SD-05	Potassium	309	263 U	1.2 X SDL
SD-06	Lead	115 J	35.9 J	3.2 X REF
	Mercury	0.34 J	0.07 J	4.9 X REF
	Potassium	343	263 U	1.3 X SDL
SD-07	Chromium	27.4	6.1 J	4.5 X REF
	Lead	248 J	35.9 J	6.9 X REF
	Mercury	2.6	0.07 J	37 X REF
SD-08	Chromium	53.8	6.1 J	8.8 X REF
	Copper	43.4	12.9	3.4 X REF
	Lead	189 J	35.9 J	5.3 X REF
	Mercury	0.84	0.07 J	5.3 X REF
	Potassium	671	263 U	2.6 X SDL
	Selenium	1.4 J	0.53 UJ	2.6 X SDL

REF = Reference concentration.
SQL = Reference Sample Quantitation Limit
SDL = Reference Sample Detection Limit
J = Quantitation approximate due to limitations identified in quality control review.
U = Indicates the compound/element was analyzed for, but not detected. The nondetect value is reported.
UJ = The reported quantitation/detection limits are estimated.
µg/kg = Micrograms per kilogram.
mg/kg = Milligrams per kilogram.

[8,9]

The sediment sample analytical results obtained by CDM from sampling activities exhibited similar results to the NUS/FIT sampling data with the detection of some VOCs, numerous PAHs, and several analytes greater than 3 times the background concentrations [8,9,35]. Acetone and 2-butanone were detected above reference sample concentrations in two downstream sediment samples [9]. Acetone was detected above the reference sample quantitation limit in sample SD-06 and SD-07 at concentrations of 180 μg/kg and 120 μg/kg, respectively. 2-Butanone was detected in samples SD-06 and SD-07 at concentrations of 81 μg/kg and 30 μg/kg respectively [9]. Xylene was also detected in one of the downstream sediment samples, SD-08, at a concentration of 55 μg/kg [9]. Xylenes are commonly associated with petroleum fuels and detected along with benzene, toluene, and ethylbenzene when a fuel product is present; however, only xylene was present in one sediment sample [9]. Additionally, it should be noted that acetone and 2-butanone are considered common laboratory contaminants in CLP RAS organics analysis [9]. No other VOCs were detected in sediment samples. There are no records that indicate specifically that these VOCs were used onsite; however, acetone and 2-butanone are common industrial solvents [4].

Eighteen PAHs at concentrations well above reference sample concentrations and quantitation limits were detected in the sediment samples [9]. The highest concentrations of PAHs detected in the sediment samples were in samples SD-02 and SD-07 [9]. The concentrations of a few PAHs in sample SD-07, such as acenaphthene, phenanthrene, and pyrene, were 20,000 μg/kg, 110,000 μg/kg, and 49,000 μg/kg, respectively. These concentrations were 870, 1,200, and 1,200 times the reference sample concentrations, respectively. Additionally, two PCB compounds, Aroclor 1242 and Aroclor 1254, were detected at concentrations of 400 μg/kg and 1,100 μg/kg, respectively; 9.5 and 26 times the SQLs [9].

Copper and mercury were detected in sediment samples collected by CDM. The highest concentrations of these two analytes were detected in the sediment samples SD-08 and SD-07 (copper at 43.4 mg/kg and mercury at 2.6 mg/kg, respectively) [8]. Copper sulfate was documented to be used onsite [35]. This substance was included in the chemical inventories after the bankruptcy of Catamount Dyers [35]. Mercury sulfide (also known as vermillion) is an acutely toxic substance that is used in the manufacture of fancy colored paper [4]. Other elements detected above three times reference sample concentrations in the surficial soil samples were beryllium, magnesium, nickel, and vanadium, while chromium, lead, potassium, and selenium were detected in the sediment samples above 3 times reference sample concentrations [8].

SOIL EXPOSURE PATHWAY

The Holden-Leonard Mill Complex is situated on 14 acres of land adjacent to the Walloomsac River [6] There is a gravel access road that begins at the northernmost property entrance, proceeds southwest between Buildings 19 and 20, and continues south along the west side of the mill building to Holden Street [6]. Access to the property is unrestricted; during the CDM onsite reconnaissance and sampling, numerous people were seen on the property including five teenage boys on bicycles, workers from 160 Benmont Avenue, people walking through the property, and vehicles using the access road [6]. An estimated 10 people work onsite [6]. The nearest residences are single private residences situated approximately 90 feet east of the

Catamount Dyers property across Benmont Avenue and 120 feet west of the Catamount Dyers property across the Walloomsac River [6]. These residences are located in residential neighborhoods [6]. CDM estimates the average number of persons per household in the town of Bennington is three people [32]. Using this estimate, there are approximately 12 people within 200 feet of the property. There are no schools or day-care facilities on or within 200 feet of the Catamount Dyers property [3]. The student population within 4 miles of the Catamount Dyers property was not determined as part of this investigation. An estimated 5,382 people live within 1 mile of Catamount Dyers property [32]. There are no sensitive environments located onsite [34].

Surficial soil samples collected by NUS/FIT and CDM exhibited PAHs at concentrations above reference sample concentrations and numerous metals including arsenic, chromium, copper, lead, magnesium, mercury, nickel, vanadium, and selenium. These compounds and metals were detected consistently above background concentrations in the 1989 NUS/FIT sample data as well as the 1994 CDM surficial soil sample data that were collected near the 1989 NUS/FIT sample locations (refer to Figures 3 and 5 for NUS/FIT and CDM sample locations and Tables 3, 5, and 10 for NUS/FIT and CDM sampling results) [8,9,35]. Soil encountered by NUS/FIT was described as black soil with small stones, and medium to fine grained gravel [35]. CDM encountered dark loamy soils with organic matter interspersed [6].

AIR PATHWAY

There are no operations being conducted at the Catamount Dyers property presently [6]. In the past however, odor problems prompted the state to require that Catamount Dyers install an air cleaning system [35]. MSI leases space at 160 Benmont Avenue as well as space in the Holden-Leonard Mill [6]. MSI employs an estimated 10 people [6]. The nearest residence is located 90 feet east across Benmont Avenue and 120 feet to the west across the Walloomsac River [6]. There is a residential neighborhood to the east across Benmont Avenue and to the west across the Walloomsac River [3,6]. There are no schools or day care facilities located within 200 feet of the Catamount Dyers property. The student population within 4 miles of the Catamount Dyers property was not determined as part of this investigation.

Table 11 lists the estimated population within 4 miles of Catamount Dyers. The table includes the estimated 10 employees of MSI which leases a portion of the Holden-Leonard Mill; however, it does not include workers who enter the distance rings during an 8-hour work day.

TABLE 11

Estimated Population Within 4 Miles of Catamount Dyers

Radial Distance From Catamount Dyers (miles)	Estimated Population
0.00 - 0.25	457
> 0.25 - 0.50	1,367
> 0.50 - 1.00	3,588
> 1.00 - 2.00	3,691
> 2.00 - 3.00	4,072
> 3.00 - 4.00	3,673
TOTAL	16,848

[32]

The Handsome Sedge (Carex Formosa) is currently under review for listing as a federal endangered species [34]. The arrow-leaved aster (*Aster sagittifolius*) and the hairy honeysuckle (*Lonicera hirsuta*) are both state special concern species and are considered rare [34]. These species can be found within 4 miles of the Catamount Dyers property [31]. Sensitive environments include over 600 acres of wetlands located within 4 miles of the Catamount Dyers property [42].

While conducting field activities, CDM monitors ambient air quality using an OVM. The OVM does not determine the substance detected, only the concentration of a substance in the air. During the onsite reconnaissance, the OVM did not register any organic vapor concentrations exceeding 1 part per million (ppm) (the detection limit of the instrument) [6]. No air sampling has been conducted at Catamount Dyers [6,35,37].

SUMMARY

The Catamount Dyers property is located on Benmont Avenue in Bennington, Vermont in a mixed commercial and residential area. The 14-acre property is known as the Holden-Leonard Mill and was the home of succession of textile firms for over 85 years. In 1951, the property was divided into two separately owned pieces, the larger portion of which was purchased by Ben-Mont Papers, Inc. for the manufacture of wrapping paper. Ben-Mont operated from this location for the next two decades. In 1971, Catamount Dyers began dyeing operations in Buildings 1, 2, 3, 4, and 5 and continued these operations until its bankruptcy in 1984. Catamount Dyers used dyes, acids, caustics, water softeners, solvents, chlorinated and aromatic hydrocarbons, and surfactants in their dyeing process. In 1984, the Vermont Agency of Environmental Conservation, Hazardous Materials Management Program (VTAEC, HMMP) conducted a series of inspections and inventories due to poor property conditions, the potential of abandonment of the property, and reportedly onsite disposal of wastes. There are no manufacturing or industrial operations presently at the Catamount Dyers property.

The only known waste stream from Catamount Dyers was 200,000 gallons per year of wastewater discharged to the Bennington Municipal Wastewater Treatment Plant. Used drums were reportedly returned to the manufacturer while cardboard containers and acid barrel liners were returned to the manufacturer. In 1985, the VTAEC completed a Preliminary Assessment on the property. In 1984, an order was issued by the VTAEC, HMMP to the existing owner of property, Bennington County Industrial Authority (BCIC) to remove the remaining barrels and waste left onsite. In 1986, the Southern Vermont Development Corporation (SVDC) purchased the property with the intent to renovate the main mill building and several intermediary buildings and sell the space as condominiums for light industrial purposes. In 1989, NUS Corporation Field Investigation Team (NUS/FIT), as part of Site Inspection (SI) activities, conducted soil sampling on the Catamount Dyers property and observed several barrels, some full, some empty, and one leaking, remaining on the property. Numerous polynuclear aromatic hydrocarbons (PAHs) in addition to several metals were detected in the NUS/FIT samples 3 times above reference sample concentrations.

On October 2, 1990, as part of initial activities performed by O'Brien & Gere Engineers, a contractor to SVDC, 21 barrels were noted on the Catamount Dyers property, three of which were leaking. In October 16, 1990, 15 ~~test pits~~ test pits were excavated and sampled exhibiting the presence of PAHs in some of the subsurface sample. O'Brien & Gere Walloomsac River sediment sampling revealed the presence of several metals, including mercury. Monitoring well sampling in 1991 revealed the presence of mercury in the groundwater on the property. On January 29, 1992, the Vermont Department of Environmental Conservation, Hazardous Materials Management Division (VTDEC, HMMD) issued an order to SVDC to remove the remaining barrels and wastes noted by NUS/FIT in 1989 and O'Brien & Gere in 1990 from the property. In June of 1992, VTDEC, HMMD contracted Jet-Line Services, Inc. to remove and dispose of barrels left on the Catamount Dyers property. CDM Federal Programs Corporation (CDM) conducted surficial soil sampling on the Catamount Dyers property and sediment sampling in the Walloomsac River on March 29, 1994. Results from the analysis of these

samples revealed the presence of PAHs and metals above reference sample concentrations in both surficial soil samples and sediment samples. Drums and other containers mentioned above were not noted to be on the property; however, a 5-gallon container of tetrachloroethene and a 55-gallon drum of a material containing petroleum distillates were observed in Building No. 3 during CDM's onsite reconnaissance on October 20, 1993.

Public drinking water sources in the town of Bennington, Vermont include the Morgan Spring which lies 0.95 mile east (the closest public drinking water source) and Bolles Brook, which is outside of the 4-mile radius of the Catamount Dyers property and upstream of the 15-mile surface water pathway. These two sources are operated by the Bennington Water Department. Other public drinking water systems within a 4-mile radius of the property include mobile home park groundwater wells. There are two private drinking water bedrock wells within 0.1 mile of the Catamount Dyers property. An estimated 3,191 people use groundwater for drinking water within 4 miles of the Catamount Dyers property. The Catamount Dyers property does not lie in a Wellhead Protection Area.

The Walloomsac River, which flows adjacent to the property, is considered an urban fishery that supports a significant amount of fishing from both the local population and recreational visitors. The river is stocked with Brown and Rainbow Trout upstream of the property. Overland flow travels west/northwest into the Walloomsac River at various probable points of entry (PPE) located on the property. The Walloomsac River lies approximately 90 feet from the southwest corner of Building 12. There are no drinking water intakes on the Walloomsac or Hoosic Rivers. There are wetland areas approximately 0.15 mile and 1 mile downstream of the property. The Walloomsac River flows past the Catamount Dyers property, continues for approximately 0.5 mile north, turns west/northwest after its confluence with the Roaring Branch and flows for approximately 2 miles until it crosses the New York state border. After crossing into New York, the Walloomsac River continues west and flows into the Hoosic River. The 15-mile surface water pathway ends 0.9 mile after the confluence of the Walloomsac and Hoosic Rivers. There are approximately 5 miles of wetland frontage along the surface water pathway. A state designated natural area lies approximately 2.5 miles downstream of the Catamount Dyers property. Sediment samples from the Wallomsac River exhibited concentrations of PAHs, polychlorinated biphenyls (PCBs), and inorganic analytes substantially above reference sample concentrations.

The closest residents to the Catamount Dyers property are situated 90 feet east across Benmont Avenue and 120 feet west across the Walloomsac River on Holden Street. There are no access restrictions to the property and a gravel road exists from the northernmost entrance to the property to the west side of the mill buildings and continues to Holden Street to the south. An estimated 10 workers are employed by a leaseholder of a portion of Building 5. There are an estimated 5,412 people living within a 1-mile radius of the property and an estimated 16,848 within a 4 mile radius. There are no schools or day-care facilities located within 200 feet of the Catamount Dyers property. The student population within 4 miles of the Catamount Dyers property was not determined as part of this investigation. A state designated natural area is located within the 4-mile radius of the property.

REFERENCES

[1] Ahearn, W. (Vermont Department of Environmental Conservation (VTDEC), Hazardous Materials Management Division (HMMD)). 1992. Letter to P. Bienvenu (Southern Vermont Development Corporation (SVDC)), RE: Notice for Drum Removal. January 29.

[2] Ahearn, W. (VTDEC, HMMD). 1992. Letter to P. Bienvenu (Executive Director, SVDC), RE: Notice of state action for drum removal - Holden-Leonard Mill Complex. February 14.

[3] Bennington Town Hall, Vermont. 1993. Assessor's Field Card and Map, 160 - 200 Benmont Avenue.

[4] Budavari, S. (editor). 1989. The Merck Index, Eleventh Edition, Rahway, New Jersey.

[5] Callum, D.R. (Vermont Agency of Natural Resources (VTANR), Department of Fish and Wildlife). 1984. Job Performance Report: Lake and Stream Survey and Inventory, Walloomsac River, Project No. F-12-R-17. May 28.

[6] CDM (CDM Federal Programs Corporation). 1993. Field Logbook - Catamount Dyers, Bennington, Vermont. TDD No. 9305-22-ACX. October 20.

[7] CDM. 1994. Task Work Plan for Surficial Soil and Sediment Sampling at Catamount Dyers, Bennington, Vermont. TDD No. 9305-22-ACX. March.

[8] CDM. 1994. Draft Data Validation Letter Report, Catamount Dyers (Inorganics) to M. Leshen (USEPA). June 14.

[9] CDM. 1994. Draft Data Validation Letter Report (Organics), Catamount Dyers to M. Leshen (USEPA). July 5.

[10] Chechowitz, L. (CDM). 1993. Record of Communication with J. Sokul (Town of Bennington), RE: Bennington Water Supply. Route 7 Contamination. TDD No. 9305-01-ACP. August 18.

[11] Chechowitz, L. (CDM). 1993. Record of Communication with C. Guetti (Town of Pownal), RE: Pownal Water Supply. Route 7 Contamination. TDD No. 9305-01-ACP. August 18.

[12] Chechowitz, L. (CDM). 1993. Record of Communication with the Selectman's Clerk (Town of Shaftsbury), RE: Shaftsbury Water Supply. Route 7 Contamination. TDD No. 9305-01-ACP. September 16.

[13] Chechowitz, L. (CDM). 1993. Record of Communication with J. Elwell (Town of North Bennington), RE: North Bennington Water Supply. Route 7 Contamination. TDD No. 9305-01-ACP. September 16.

[14] Chechowitz, L. (CDM). 1993. Record of Communication with D. Shepard (VTDEC, HMMD), RE: Drum Removal at the Holden-Leonard Mill Complex - 1992. Catamount Dyers. TDD No. 9305-22-ACX. September 20.

[15] Chechowitz, L. (CDM). 1993. Record of Communication with a representative of the State of New York Region IV Division of Water, RE: Drinking Water Intakes. Route 7 Contamination. TDD No. 9305-01-ACP. October 4.

[16] Chechowitz, L. (CDM). 1993. Record of Communication with J. Sokul (Town of Bennington), RE: Morgan Spring Usage. Catamount Dyers. TDD No. 9305-22-ACX. December 3.

[17] Chechowitz, L. (CDM). 1993. Record of Communication with D. Vanecek (State of Vermont), RE: Bedrock in Bennington Area. Catamount Dyers. TDD No. 9305-22-ACX. December 7.

[18] Chechowitz, L. (CDM). 1993. Record of Communication with J. Cotton (U.S. Geological Survey (USGS), New Hampshire Office), RE: Geology in the Bennington Area. Catamount Dyers. TDD No. 9305-22-ACX. December 7.

[19] Chechowitz, L. (CDM). 1993. Record of Communication with J. Downy (Geannelis' Restaurant), RE: Drinking Water Usage for Geannelis' Restaurant. Catamount Dyers. December 28.

[20] Chechowitz, L. (CDM). 1993. Record of Communication with T. Raymond (VTDEC, Water Supply Division), RE: Raney Collector Well. Catamount Dyers. December 28.

[21] Chechowitz, L. (CDM). 1994. Record of Communication with Town Clerk (Town of Bennington), RE: Holden-Leonard Mill Ownership. Catamount Dyers. TDD No. 9305-22-ACX. August 1.

[22] Chechowitz, L, (CDM). 1994. Record of Communication with D.R. Callum (VTANR, Department of Fish and Wildlife), RE: Walloomsac River Fishery. Catamount Dyers. TDD No. 9305-22-ACX.

[23] Clark, P.E., P., (O'Brien & Gere Engineers, Inc.). 1990. Letter Report to P. Bienvenu (Executive Director, SVDC), RE: Holden-Leonard Mill Site Inspection Findings. October 11.

[24] Clark, P.E., P., (O'Brien & Gere Engineers, Inc.). 1990. Letter Report to SVDC, RE: Test Pit Excavations and Property Conditions. October 25.

[25] Clark, P.E., P., (O'Brien & Gere Engineers, Inc.). 1993. Letter Report to T. Bluto (SVDC), RE: Round #1 Groundwater Analytical Results. May 17.

[26] Clark, P.E., P., (O'Brien & Gere Engineers, Inc.). 1993. Letter Report to T. Bluto (SVDC), RE: Round #2 Groundwater Analytical Results. October 12.

[27] Cropley, T.J. (VTDEC, HMMD). 1992. Letter to Jetline Services, Inc. RE: Payment for Remedial Services Rendered. December 29.

[28] Fitzgerald, B. (Vermont Agency of Environmental Conservation (VTAEC)). 1984. Trip Report, Catamount Dyers, Bennington, Vermont. No date.

[29] Fitzgerald, B. (VTAEC). 1984. Memorandum to R. Valentinetti (VTAEC). November 30.

[30] Fitzgerald, B. (VTAEC). 1985. Record of Communication with H. Brown (Catamount Dyers), RE: Disposal Practices for Catamount Dyers Operation. January 21.

[31] FEMA (Federal Emergency Management Agency). 1986. Flood Insurance Rate Map, Bennington, Vermont. June 17.

[32] Frost, R. (Frost Associates). 1993. "CENTRACTS Report", RE: Population, Households and Private Water Wells of Each Block Group for Catamount Dyers, Bennington, Vermont. August 10.

[33] MacFadyen, J.A. (Vermont Geological Survey). 1956. "The Geology of the Bennington Area, Vermont", Vermont Geological Survey, Bulletin No. 7.

[34] Marshal, E. (VTANR, Vermont Department of Fish and Wildlife). 1993. Letter to T. Abbott Taft (CDM), RE: Sensitive Environment Information. October 5.

[35] NUS Corporation. 1990. Final Screening Site Inspection Report, Catamount Dyers, Bennington, Vermont. TDD No. F1-8903-02. May 1.

[36] NUS Corporation. 1989. Field Logbook - Catamount Dyers, Bennington, Vermont. TDD No. F1-8903-02. March 10.

[37] O'Brien and Gere Engineers, Inc. 1992. Remedial Response Plan, Holden-Leonard Mill Complex, Bennington, Vermont. March.

[38] Shepard, D. (VTDEC, HMMD). 1990. Memorandum to Catamount Dyers File, RE: Meeting with SVDC and Vermont Industrial Development Authority (VIDA) representatives. June 21.

[39] Shepard, D. (VTDEC, HMMD). 1991. Memorandum to Catamount Dyers File, RE: Monitoring Well Installation. May 6.

[40] Shepard, D. (VTDEC, HMMD). 1991. Letter to P. Bienvenu (Executive Director, SVDC), RE: Comments to O'Brien & Gere Remedial Response Plan. October 11.

[41] Toppin, K.W., McKenna, K.E., Cotton, J.E., and Flanagan, S.M. (USGS). 1994. Water Resources Data for New Hampshire and Vermont, Water Year 1993. USGS Water Data Report NH-VT-93-1. July.

[42] U.S. Department of the Interior, Fish and Wildlife Services, Office of Biological Services. 1977. National Wetlands Inventory Map 19A. Bennington Quadrangle, Vermont. October.

[43] U.S. Department of the Interior, Fish and Wildlife Services, Office of Biological Services. 1977. National Wetlands Inventory Map 9C. Hoosick Falls Quadrangle, New York-Vermont. October.

[44] U.S. Department of the Interior, National Park Service. 1988. National Register of Historical Places, Form 10-900a, Holden-Leonard Mill Complex. July.

[45] U.S. Environmental Protection Agency (USEPA). 1984. CERCLIS Site/Event Listing. April 10.

[46] USEPA. 1992. RCRA Handlers in Region I Sorted by Town - Freedom of Information Act Report. October 23.

[47] USGS. 1943. Hoosic Falls Quadrangle, New York - Vermont. 7.5′ Series (Topographic) Photorevised 1980.

[48] USGS. 1954. Bennington Quadrangle, Vermont. 7.5' Series (Topographic).

[49] USGS. 1954. Pownal Quadrangle, Vermont. 7.5′ Series (Topographic).

[50] VTAEC. 1985. Catamount Dyers Preliminary Assessment. January 25.

[51] VTDEC. 1988. Ground Water Protection Rule and Strategy, Chapter 12. September 29.

[52] VTDEC, Water Supply Division. No Date. Basic Well Data, Bennington, Vermont.

[53] VTDEC, Water Supply Division. 1993. Vermont Public Water Systems List. September 20.

[54] VTDEC, Water Supply Division, 1990. Water Supply Protection Atlas Map Overlays. Bennington and Pownal Quadrangles.

[55] Wright, F.M. (Vermont Geological Survey). 1975. "Geology for Environmental Planning in the Bennington - Manchester Region, Vermont", Vermont Geological Survey, Environmental Geology No.6.

[56] Valentinetti, R. (VTAEC). 1985. Letter to J. Zwynenburg (Executive Director, Bennington County Industrial Corporation), RE: VTAEC Findings, Action, and Recommendation for Holden - Leonard Mill Complex. January 22.

ATTACHMENT A

Catamount Dyers

Organic Analytical Results and Sample Quantitation Limits
CDM Federal Programs Corporation

March 29, 1994
(sampling date)

CASE NO: 21820
SDG NO: AEY28

VOLATILE AQUEOUS ANALYSIS

Table III Page 1 of 12
SITE: CATAMOUNT DYERS BENNINGTON, VT
LABORATORY: AQUATEC, INC.

EPA SAMPLE NUMBER:	AEY28		AEY29		AEY30							
SAMPLE LOCATION:	TB032994		EB-SD		EB-SS							
LABORATORY SAMPLE NUMBER:	216053		216054		216055							
SAMPLE TYPE:	Routine Sample		Routine Sample		Routine Sample							
MATRIX/ANALYSIS:	WATER/LOW		WATER/LOW		WATER/LOW							
DILUTION FACTOR:	1.0		1.0		1.0							
DATE SAMPLED:	03/29/94		03/29/94		03/29/94							
DATE ANALYZED:	04/08/94		04/08/94		04/08/94							
VOA												
Chloromethane	10	U	10	U	10	U						
Bromomethane	10	U	10	U	10	U						
Vinyl Chloride	10	U	10	U	10	U						
Chloroethane	10	U	10	U	10	U						
Methylene Chloride	10	U	10	U	10	U						
Acetone	10	U	10	U	10	U						
Carbon Disulfide	10	U	10	U	10	U						
1,1-Dichloroethene	10	U	10	U	10	U						
1,1-Dichloroethane	10	U	10	U	10	U						
1,2-Dichloroethene (total)	10	U	10	U	10	U						
Chloroform	10	U	10	U	10	U						
1,2-Dichloroethane	10	U	10	U	10	U						
2-Butanone	10	UJ	10	UJ	10	UJ						
1,1,1-Trichloroethane	10	U	10	U	10	U						
Carbon Tetrachloride	10	U	10	U	10	U						
Bromodichloromethane	10	U	10	U	10	U						
1,2-Dichloropropane	10	U	10	U	10	U						
cis-1,3-Dichloropropene	10	U	10	U	10	U						
Trichloroethene	10	U	10	U	10	U						
Dibromochloromethane	10	U	10	U	10	U						
1,1,2-Trichloroethane	10	U	10	U	10	U						
Benzene	10	U	10	U	10	U						
trans-1,3-Dichloropropene	10	U	10	U	10	U						
Bromoform	10	U	10	U	10	U						
4-Methyl-2-Pentanone	10	U	10	U	10	U						
2-Hexanone	10	U	10	U	10	U						
Tetrachloroethene	10	U	10	U	10	U						
1,1,2,2-Tetrachloroethane	10	U	10	U	10	U						
Toluene	10	U	10	U	10	U						
Chlorobenzene	10	U	10	U	10	U						
Ethylbenzene	10	U	10	U	10	U						
Styrene	10	U	10	U	10	U						
Xylene (total)	10	U	10	U	10	U						

FILENAME: AEY28.SDG DATE: 05/11/94 TIME: 16:06 CADRE 1.92

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

CASE NO: 21820
SDG NO: AEY28

VOLATILE SOIL ANALYSIS

SITE: CATAMOUNT DYERS BENNINGTON, VT
LABORATORY: AQUATEC, INC.

EPA SAMPLE NUMBER:	AEY34		AEY35		AEY36		AEY37		AEY38		AEY39	
SAMPLE LOCATION:	SS-01		SS-02		SS-03		SS-04		SS-05		SD-01	
LABORATORY SAMPLE NUMBER:	216059		216060		216061		216062		216063		216064	
SAMPLE TYPE:	Routine Sample		Routine Sample		Routine Sample		Routine Sample		Routine Sample		Routine Sample	
MATRIX/ANALYSIS:	SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW	
DILUTION FACTOR:	1.0		1.0		1.0		1.0		1.0		1.0	
DATE SAMPLED:	03/29/94		03/29/94		03/29/94		03/29/94		03/29/94		03/29/94	
DATE ANALYZED:	04/06/94		04/09/94		04/06/94		04/06/94		04/06/94		04/06/94	
PERCENT SOLID:	72		88		88		90		90		69	
VOA												
Chloromethane	14	U	11	U	11	U	11	U	11	U	14	
Bromomethane	14	U	11	U	11	U	11	U	11	U	14	
Vinyl Chloride	14	U	11	U	11	U	11	U	11	U	14	
Chloroethane	14	U	11	U	11	U	11	U	11	U	14	
Methylene Chloride	14	U	11	U	11	U	11	U	11	U	14	
Acetone	14	U	11	U	11	U	11	U	11	U	14	
Carbon Disulfide	14	U	11	U	11	U	11	U	11	U	14	
1,1-Dichloroethene	14	U	11	U	11	U	11	U	11	U	14	
1,1-Dichloroethane	14	U	11	U	11	U	11	U	11	U	14	
1,2-Dichloroethene (total)	14	U	11	U	11	U	11	U	11	U	14	
Chloroform	14	U	11	U	11	U	11	U	11	U	14	
1,2-Dichloroethane	14	U	11	U	11	U	11	U	11	U	14	
2-Butanone	14	UJ	11	UJ	11	UJ	11	UJ	11	UJ	14	
1,1,1-Trichloroethane	14	U	11	U	11	U	11	U	11	U	14	
Carbon Tetrachloride	14	U	11	U	11	U	11	U	11	U	14	
Bromodichloromethane	14	U	11	U	11	U	11	U	11	U	14	
1,2-Dichloropropane	14	U	11	U	11	U	11	U	11	U	14	
cis-1,3-Dichloropropene	14	U	11	U	11	U	11	U	11	U	14	
Trichloroethene	14	U	11	U	11	U	11	U	11	U	14	
Dibromochloromethane	14	U	11	U	11	U	11	U	11	U	14	
1,1,2-Trichloroethane	14	U	11	U	11	U	11	U	11	U	14	
Benzene	14	U	11	U	11	U	11	U	11	U	14	
trans-1,3-Dichloropropene	14	U	11	U	11	U	11	U	11	U	14	
Bromoform	14	U	11	U	11	U	11	U	11	U	14	
4-Methyl-2-Pentanone	14	UJ	11	U	11	U	11	U	11	U	14	
2-Hexanone	14	UJ	11	U	11	U	11	U	11	U	14	
Tetrachloroethene	14	UJ	11	U	11	U	11	U	11	U	14	
1,1,2,2-Tetrachloroethane	14	UJ	11	U	11	U	11	U	11	U	14	
Toluene	14	UJ	11	U	11	U	11	U	11	U	14	
Chlorobenzene	14	UJ	11	U	11	U	11	U	11	U	14	
Ethylbenzene	14	UJ	11	U	11	U	11	U	11	U	14	
Styrene	14	UJ	11	U	11	U	11	U	11	U	14	
Xylene (total)	14	UJ	11	U	11	U	11	U	11	U	2	

FILENAME: AEY28.SDG DATE: 05/11/94 TIME: 14:12 CADRE 1.92

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

PESTICIDE/PCB SOIL ANALYSIS

CASE NO: 21820
SDG NO: AEY28

SITE: CATAMOUNT DYERS BENNINGTON, VT
LABORATORY: AQUATEC, INC.

EPA SAMPLE NUMBER:	AEY40		AEY41		AEY42		AEY43		AEY44		AEY45	
SAMPLE LOCATION:	SD-02		SD-03		SD-04		SD-05		SD-06		SD-07	
LABORATORY SAMPLE NUMBER:	216065		216066		216067		216068		216069		216070	
SAMPLE TYPE:	Routine Sample		Routine Sample		Routine Sample		Routine Sample		Routine Sample		Routine Sample	
MATRIX/ANALYSIS:	SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW	
DILUTION FACTOR:	1.0		10.0		1.0		1.0		2.0		20.0	
DATE SAMPLED:	03/29/94		03/29/94		03/29/94		03/29/94		03/29/94		03/29/94	
DATE EXTRACTED:	04/10/94		04/10/94		04/10/94		04/10/94		04/10/94		04/10/94	
DATE ANALYZED:	05/04/94		05/07/94		05/04/94		05/04/94		05/07/94		05/07/94	
PERCENT SOLID:	63		78		71		71		60		47	
PEST/PCB												
alpha-BHC	2.7	U	22	U	2.4	U	2.4	U	5.7	U	18	U
beta-BHC	2.7	U	22	U	2.4	U	2.4	U	5.7	U	18	U
delta-BHC	2.7	U	22	U	2.4	U	2.4	U	5.7	U	18	U
gamma-BHC	2.7	U	22	U	2.4	U	2.4	U	5.7	U	18	U
Heptachlor	2.7	U	22	U	2.4	U	2.4	U	5.7	U	18	U
Aldrin	2.7	U	22	U	2.4	U	2.4	U	5.7	U	23	
Heptachlor epoxide	2.7	U	22	U	2.4	U	2.4	U		R	18	U
Endosulfan I	10	U	170	UJ	7.9	U	14		7.6	J	70	U
Dieldrin	5.2	U	42	U	4.6	U	4.6	U	11	U	35	U
4,4'-DDE		R	42	U	4.6	U	4.6	U	21	J	110	
Endrin	5.2	U	42	U	4.6	U	4.6	U	11	U	31	U
Endosulfan II	5.2	U	26	J	4.6	U	4.6	U	11	U		R
4,4'-DDD	5.2	U	42	U	4.6	U	4.6	U	71	J	280	
Endosulfan sulfate	5.2	U	42	U	4.6	U	4.6	U	11	U	35	U
4,4'-DDT	5.2	U	42	U	4.6	U	4.6	U	31			R
Methoxychlor	27	U	220	U	24	U	24	U	57	U	180	U
Endrin ketone	5.2	U	42	U	4.6	U	4.6	U	11	U	48	U
Endrin aldehyde		R	42	U		R		R	11	U		R
alpha-Chlordane		R	66	R		R		R	5.7	U		R
gamma-Chlordane	2.7	U	22	U	2.4	U	1.5	J	3.6	J		R
Toxaphene	270	U	220	U	240	U	240	U	570	U	1800	U
Aroclor-1016	52	U	420	U	46	U	46	U	110	U	350	U
Aroclor-1221	110	U	860	U	94	U	94	U	220	U	710	U
Aroclor-1232	52	U	420	U	46	U	46	U	110	U	350	U
Aroclor-1242	52	U	420	U	46	U	46	U	110	U	400	U
Aroclor-1248	52	U	420	U	46	U	46	U	110	U	350	U
Aroclor-1254	52	U	420	U	46	U	46	U	110	U	1100	U
Aroclor-1260	49	J	420	U	44	J	52		100	J	370	U

FILENAME: AEY28.SDG DATE: 05/27/94 TIME:1200 CADRE 1.92

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

VOLATILE SOIL ANALYSIS

CASE NO: 21820
SDG NO: AEY28

SITE: CATAMOUNT DYERS BENNINGTON, VT
LABORATORY: AQUATEC, INC.

EPA SAMPLE NUMBER:	AEY46						
SAMPLE LOCATION:	SO-08						
LABORATORY SAMPLE NUMBER:	216071						
SAMPLE TYPE:	Routine Sample						
MATRIX/ANALYSIS:	SOIL/LOW						
DILUTION FACTOR:	1.0						
DATE SAMPLED:	03/29/94						
DATE ANALYZED:	04/07/94						
PERCENT SOLID:	59						
VOA							
Chloromethane	17	U					
Bromomethane	17	U					
Vinyl Chloride	17	U					
Chloroethane	17	U					
Methylene Chloride	17	U					
Acetone	30	U					
Carbon Disulfide	17	U					
1,1-Dichloroethene	17	U					
1,1-Dichloroethane	17	U					
1,2-Dichloroethene (total)	17	U					
Chloroform	17	U					
1,2-Dichloroethane	17	U					
2-Butanone	11	J					
1,1,1-Trichloroethane	17	U					
Carbon Tetrachloride	17	U					
Bromodichloromethane	17	U					
1,2-Dichloropropane	17	U					
cis-1,3-Dichloropropene	17	U					
Trichloroethene	17	U					
Dibromochloromethane	17	U					
1,1,2-Trichloroethane	17	U					
Benzene	11	J					
trans-1,3-Dichloropropene	17	U					
Bromoform	17	U					
4-Methyl-2-Pentanone	17	U					
2-Hexanone	17	U					
Tetrachloroethene	17	U					
1,1,2,2-Tetrachloroethane	17	U					
Toluene	17	U					
Chlorobenzene	17	U					
Ethylbenzene	17	U					
Styrene	17	U					
Xylene (total)	55	U					

FILENAME: AEY28.SDG DATE: 05/11/94 TIME: 14:15 CADRE 1.92

Water units are reported in ug/L.
Soil units are reported in ug/kg.

CASE NO: 21820
SDG NO: AEY28

SEMIVOLATILE AQUEOUS ANALYSIS

SITE: CATAMOUNT DYERS BENNINGTON, VT
LABORATORY: AQUATEC, INC.

EPA SAMPLE NUMBER:	AEY29		AEY30					
SAMPLE LOCATION:	EB-SD		EB-SS					
LABORATORY SAMPLE NUMBER:	216054		216055					
SAMPLE TYPE:	Routine Sample		Routine Sample					
MATRIX/ANALYSIS:	WATER/LOW		WATER/LOW					
DILUTION FACTOR:	1.0		1.0					
DATE SAMPLED:	03/29/94		03/29/94					
DATE EXTRACTED:	04/06/94		04/06/94					
DATE ANALYZED:	04/08/94		04/08/94					
BNA								
Phenol	10	U	10	U				
bis(2-Chloroethyl) ether	10	U	10	U				
2-Chlorophenol	10	U	10	U				
1,3-Dichlorobenzene	10	U	10	U				
1,4-Dichlorobenzene	10	U	10	U				
1,2-Dichlorobenzene	10	U	10	U				
2-Methylphenol	10	U	10	U				
2,2'-oxybis(1-Chloropropane)	10	U	10	U				
4-Methylphenol	10	U	10	U				
N-Nitroso-di-n-propylamine	10	U	10	U				
Hexachloroethane	10	U	10	U				
Nitrobenzene	10	U	10	U				
Isophorone	10	U	10	U				
2-Nitrophenol	10	U	10	U				
2,4-Dimethylphenol	10	U	10	U				
bis(2-Chloroethoxy) methane	10	U	10	U				
2,4-Dichlorophenol	10	U	10	U				
1,2,4-Trichlorobenzene	10	U	10	U				
Naphthalene	10	U	10	U				
4-Chloroaniline	10	U	10	U				
Hexachlorobutadiene	10	U	10	U				
4-Chloro-3-methylphenol	10	U	10	U				
2-Methylnaphthalene	10	U	10	U				
Hexachlorocyclopentadiene	10	U	10	U				
2,4,6-Trichlorophenol	10	U	10	U				
2,4,5-Trichlorophenol	25	U	25	U				
2-Chloronaphthalene	10	U	10	U				
2-Nitroaniline	25	U	25	U				
Dimethylphthalate	10	U	10	U				
Acenaphthylene	10	U	10	U				
2,6-Dinitrotoluene	10	U	10	U				
3-Nitroaniline	25	U	25	U				
Acenaphthene	10	U	10	U				
2,4-Dinitrophenol	25	U	25	U				
4-Nitrophenol	25	U	25	U				
Dibenzofuran	10	U	10	U				
2,4-Dinitrotoluene	10	U	10	U				
Diethylphthalate	10	U	10	U				
4-Chlorophenyl-phenyl ether	10	U	10	U				
Fluorene	10	U	10	U				
4-Nitroaniline	25	U	25	U				
4,6-Dinitro-2-methylphenol	25	U	25	U				
N-nitrosodiphenylamine	10	U	10	U				
4-Bromophenyl-phenylether	10	U	10	U				
Hexachlorobenzene	10	U	10	U				
Pentachlorophenol	25	U	25	U				
Phenanthrene	10	U	10	U				
Anthracene	10	U	10	U				
Carbazole	10	U	10	U				
Di-n-butylphthalate	10	U	10	U				
Fluoranthene	10	U	10	U				
Pyrene	10	U	10	U				
Butylbenzylphthalate	10	U	10	U				
3,3'-Dichlorobenzidine	10	U	10	U				
Benzo(a)anthracene	10	U	10	U				
Chrysene	10	U	10	U				
bis(2-Ethylhexyl)phthalate	2	J	2	J				
Di-n-octylphthalate	10	U	10	U				
Benzo(b)fluoranthene	10	U	10	U				
Benzo(k)fluoranthene	10	U	10	U				
Benzo(a)pyrene	10	U	10	U				
Indeno(1,2,3-cd)pyrene	10	U	10	U				
Dibenz(a,h)anthracene	10	U	10	U				
Benzo(g,h,i)perylene	10	U	10	U				

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

EPA SAMPLE NUMBER:	AEY34		AEY35		AEY36		AEY37		AEY38		AEY39	
SAMPLE LOCATION:	SS-01		SS-02		SS-03		SS-04		SS-05		SD-01	
LABORATORY SAMPLE NUMBER:	216059		216060		216061		216062		216063		216064	
SAMPLE TYPE:	Routine Sample		Routine Sample		Routine Sample		Routine Sample		Routine Sample		Routine Sample	
MATRIX/ANALYSIS:	SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW	
DILUTION FACTOR:	1.0		500.0		1.0		5.0		4.0		1.0	
DATE SAMPLED:	03/29/94		03/29/94		03/29/94		03/29/94		03/29/94		03/29/94	
DATE EXTRACTED:	04/10/94		04/10/94		04/10/94		04/10/94		04/10/94		04/10/94	
DATE ANALYZED:	04/20/94		04/20/94		04/20/94		04/20/94		04/20/94		04/20/94	
PERCENT SOLID:	74		88		89		89		89		79	
BNA												
Phenol	450	U	190000	U	370	U	1800	U	1500	U	420	U
bis(2-Chloroethyl) ether	450	U	190000	U	370	U	1800	U	1500	U	420	U
2-Chlorophenol	450	U	190000	U	370	U	1800	U	1500	U	420	U
1,3-Dichlorobenzene	450	U	190000	U	370	U	1800	U	1500	U	420	U
1,4-Dichlorobenzene	450	U	190000	U	370	U	1800	U	1500	U	420	U
1,2-Dichlorobenzene	450	U	190000	U	370	U	1800	U	1500	U	420	U
2-Methylphenol	450	U	190000	U	370	U	1800	U	1500	U	420	U
2,2'-oxybis(1-Chloropropane)	450	UJ	190000	UJ	370	UJ	1800	UJ	1500	UJ	420	UJ
4-Methylphenol	450	U	190000	U	370	U	1800	U	1500	U	420	U
N-Nitroso-di-n-propylamine	450	U	190000	U	370	U	1800	U	1500	U	420	U
Hexachloroethane	450	U	190000	U	370	U	1800	U	1500	U	420	U
Nitrobenzene	450	U	190000	U	370	U	1800	U	1500	U	420	U
Isophorone	450	U	190000	U	370	U	1800	U	1500	U	420	U
2-Nitrophenol	450	U	190000	U	370	U	1800	U	1500	U	420	U
2,4-Dimethylphenol	450	U	190000	U	370	U	1800	U	1500	U	420	U
bis(2-Chloroethoxy) methane	450	U	190000	U	370	U	1800	U	1500	U	420	U
2,4-Dichlorophenol	450	U	190000	U	370	U	1800	U	1500	U	420	U
1,2,4-Trichlorobenzene	450	U	190000	U	370	U	1800	U	1500	U	420	U
Naphthalene	450	UJ	12000	J	45	J	1800	UJ	1500	UJ	420	UJ
4-Chloroaniline	450	U	190000	U	370	U	1800	U	1500	U	420	U
Hexachlorobutadiene	450	U	190000	U	370	U	1800	U	1500	U	420	U
4-Chloro-3-methylphenol	450	U	190000	U	370	U	1800	U	1500	U	420	U
2-Methylnaphthalene	25	J	23000	J	30	J	1800	U	1500	U	420	U
Hexachlorocyclopentadiene	450	U	190000	U	370	U	1800	U	1500	U	420	U
2,4,6-Trichlorophenol	450	U	190000	U	370	U	1800	U	1500	U	420	U
2,4,5-Trichlorophenol	1100	U	450000	U	900	U	4500	U	3600	U	1000	U
2-Chloronaphthalene	450	U	190000	U	370	U	1800	U	1500	U	420	U
2-Nitroaniline	1100	U	450000	U	900	U	4500	U	3600	U	1000	U
Dimethylphthalate	450	U	190000	U	370	U	1800	U	1500	U	420	U
Acenaphthylene	450	U	190000	U	38	J	1800	U	1500	U	25	J
2,6-Dinitrotoluene	450	U	190000	U	370	U	1800	U	1500	U	420	U
3-Nitroaniline	1100	U	450000	U	900	U	4500	U	3600	U	1000	U
Acenaphthene	450	UJ	150000	J	200	J	530	J	1500	UJ	52	J
2,4-Dinitrophenol	1100	U	450000	U	900	U	4500	U	3600	U	1000	U
4-Nitrophenol	1100	U	450000	U	900	U	4500	U	3600	U	1000	U
Dibenzofuran	450	U	55000	J	94	J	230	J	1500	U	38	J
2,4-Dinitrotoluene	450	U	190000	U	370	U	1800	U	1500	U	420	U
Diethylphthalate	450	U	190000	U	370	U	1800	U	1500	U	420	U
4-Chlorophenyl-phenyl ether	450	U	190000	U	370	U	1800	U	1500	U	420	U
Fluorene	450	U	98000	J	160	J	560	J	1500	U	93	J
4-Nitroaniline	1100	U	450000	U	900	U	4500	U	3600	U	1000	U
4,6-Dinitro-2-methylphenol	1100	U	450000	U	900	U	4500	U	3600	U	1000	U
N-nitrosodiphenylamine	450	U	190000	U	370	U	1800	U	1500	U	420	U
4-Bromophenyl-phenylether	450	U	190000	U	370	U	1800	U	1500	U	420	U
Hexachlorobenzene	450	UJ	190000	UJ	370	UJ	1800	UJ	1500	UJ	420	UJ
Pentachlorophenol	1100	U	450000	U	900	U	4500	U	3600	U	1000	U
Phenanthrene	330	J	540000		2300	J	8300	J	1500	U	1200	
Anthracene	59	J	190000		370	J	2400	J	1500	U	200	J
Carbazole	33	J	91000	J	220	J	380	J	1500	U	100	J
Di-n-butylphthalate	30	J	190000	UJ	520	J	1800	U	1500	U	420	U
Fluoranthene	560	J	620000	J	2700	J	11000	J	1500	UJ	1500	
Pyrene	560	J	530000	J	2800	J	10000	J	88	J	1200	
Butylbenzylphthalate	450	U	190000	U	370	U	1800	U	1500	U	51	J
3,3'-Dichlorobenzidine	450	U	190000	U	370	U	1800	U	1500	U	420	U
Benzo(a)anthracene	330	J	290000		1400	J	5400	J	1500	U	580	
Chrysene	440	J	310000		1400	J	5200	J	1500	U	730	
bis(2-Ethylhexyl)phthalate	450	U	190000	U	370	U	1800	U	1500	U	420	U
Di-n-octylphthalate	450	U	190000	U	370	U	1800	U	1500	U	420	U
Benzo(b)fluoranthene	320	J	210000		1400	J	3500	J	1500	U	580	
Benzo(k)fluoranthene	300	J	260000	J	1100	J	4000	J	1500	U	420	
Benzo(a)pyrene	280	J	270000		1500	J	4200	J	1500	U	540	
Indeno(1,2,3-cd)pyrene	160	J	140000	J	820	J	2200	J	1500	U	300	
Dibenz(a,h)anthracene	78	J	58000	J	340	J	940	J	1500	U	120	
Benzo(g,h,i)perylene	130	J	130000	J	2700	J	1500	J	1500	UJ	240	

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

SEMIVOLATILE SOIL ANALYSIS

CASE NO: 21820
SDG NO: AEY28

SITE: CATAMOUNT DYERS BENNINGTON, VT
LABORATORY: AQUATEC, INC.

EPA SAMPLE NUMBER:	AEY40		AEY41		AEY42		AEY43		AEY44		AEY45	
SAMPLE LOCATION:	SD-02		SD-03		SD-04		SD-05		SD-06		SD-07	
LABORATORY SAMPLE NUMBER:	216065		216066		216067		216068		216069		216070	
SAMPLE TYPE:	Routine Sample		Routine Sample		Routine Sample		Routine Sample		Routine Sample		Routine Sample	
MATRIX/ANALYSIS:	SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW	
DILUTION FACTOR:	1.0		25.0		1.0		3.3		6.7		20.0	
DATE SAMPLED:	03/29/94		03/29/94		03/29/94		03/29/94		03/29/94		03/29/94	
DATE EXTRACTED:	04/10/94		04/10/94		04/10/94		04/10/94		04/10/94		04/10/94	
DATE ANALYZED:	04/20/94		04/20/94		04/20/94		04/20/94		04/20/94		04/20/94	
PERCENT SOLID:	63		78		71		71		60		47	
BNA												
Phenol	520	U	10000	U	460	U	1500	U	3700	U	14000	U
bis(2-Chloroethyl) ether	520	U	10000	U	460	U	1500	U	3700	U	14000	U
2-Chlorophenol	520	U	10000	U	460	U	1500	U	3700	U	14000	U
1,3-Dichlorobenzene	520	U	10000	U	460	U	1500	U	3700	U	14000	U
1,4-Dichlorobenzene	520	U	10000	U	460	U	1500	U	3700	U	14000	U
1,2-Dichlorobenzene	520	U	10000	U	460	U	1500	U	3700	U	14000	U
2-Methylphenol	520	U	10000	U	460	U	1500	U	3700	U	14000	U
2,2'-oxybis(1-Chloropropane)	520	UJ	10000	UJ	460	UJ	1500	UJ	3700	UJ	14000	UJ
4-Methylphenol	520	U	10000	U	460	U	1500	U	3700	U	14000	U
N-Nitroso-di-n-propylamine	520	U	10000	U	460	U	1500	U	3700	U	14000	U
Hexachloroethane	520	U	10000	U	460	U	1500	U	3700	U	14000	U
Nitrobenzene	520	U	10000	U	460	U	1500	U	3700	U	14000	U
Isophorone	520	U	10000	U	460	U	1500	U	3700	U	14000	U
2-Nitrophenol	520	U	10000	U	460	U	1500	U	3700	U	14000	U
2,4-Dimethylphenol	520	U	10000	U	460	U	1500	U	3700	U	14000	U
bis(2-Chloroethoxy) methane	520	U	10000	U	460	U	1500	U	3700	U	14000	U
2,4-Dichlorophenol	520	U	10000	U	460	U	1500	U	3700	U	14000	U
1,2,4-Trichlorobenzene	520	U	10000	U	460	U	1500	U	3700	U	14000	U
Naphthalene	43	J	6800	J	100	J	190	J	3700	UJ	4000	J
4-Chloroaniline	520	U	10000	U	460	U	1500	U	3700	U	14000	U
Hexachlorobutadiene	520	U	10000	U	460	U	1500	U	3700	U	14000	U
4-Chloro-3-methylphenol	520	U	10000	U	460	U	1500	U	3700	U	14000	U
2-Methylnaphthalene	28	J	1900	J	61	J	1500	U	3700	U	1700	J
Hexachlorocyclopentadiene	520	U	10000	U	460	U	1500	U	3700	U	14000	U
2,4,6-Trichlorophenol	520	U	10000	U	460	U	1500	U	3700	U	14000	U
2,4,5-Trichlorophenol	1300	U	26000	U	1100	U	3800	U	8900	U	34000	U
2-Chloronaphthalene	520	U	10000	U	460	U	1500	U	3700	U	14000	U
2-Nitroaniline	1300	U	26000	U	1100	U	3800	U	8900	U	34000	U
Dimethylphthalate	520	U	10000	U	460	U	1500	U	3700	U	14000	U
Acenaphthylene	520	U	10000	U	460	U	1500	U	3700	U	3500	J
2,6-Dinitrotoluene	520	U	10000	U	460	U	1500	U	3700	U	14000	U
3-Nitroaniline	1300	U	26000	U	1100	U	3800	U	8900	U	34000	U
Acenaphthene	170	J	9400	J	280	J	700	J	3700	UJ	20000	
2,4-Dinitrophenol	1300	U	26000	U	1100	U	3800	U	8900	U	34000	U
4-Nitrophenol	1300	U	26000	U	1100	U	3800	U	8900	U	34000	U
Dibenzofuran	83	J	4700	J	140	J	340	J	3700	U	5500	J
2,4-Dinitrotoluene	520	U	10000	U	460	U	1500	U	3700	U	14000	U
Diethylphthalate	520	U	10000	U	460	U	1500	U	3700	U	14000	U
4-Chlorophenyl-phenyl ether	520	U	10000	U	460	U	1500	U	3700	U	14000	U
Fluorene	180	J	7400	J	250	J	600	J	3700	U	18000	
4-Nitroaniline	1300	U	26000	U	1100	U	3800	U	8900	U	34000	U
4,6-Dinitro-2-methylphenol	1300	U	26000	U	1100	U	3800	U	8900	U	34000	U
N-nitrosodiphenylamine	520	U	10000	U	460	U	1500	U	3700	U	14000	U
4-Bromophenyl-phenylether	520	U	10000	U	460	U	1500	U	3700	U	14000	U
Hexachlorobenzene	520	UJ	10000	UJ	460	UJ	1500	UJ	3700	UJ	14000	UJ
Pentachlorophenol	1300	U	26000	U	1100	U	3800	U	8900	U	34000	U
Phenanthrene	1900	J	63000		2200		5300		620	J	110000	
Anthracene	360	J	17000		420	J	1100	J	3700	U	11000	J
Carbazole	160	J	8100	J	290	J	750	J	3700	U	14000	U
Di-n-butylphthalate	520	U	10000	U	22	J	1500	U	3700	U	14000	U
Fluoranthene	2100	J	60000	J	2500	J	6800	J	1100	J	33000	
Pyrene	1800	J	59000	J	2800	J	4500	J	970	J	49000	
Butylbenzylphthalate	520	U	10000	U	51	J	1500	U	3700	U	14000	U
3,3'-Dichlorobenzidine	520	U	10000	U	460	U	1500	U	3700	U	14000	U
Benzo(a)anthracene	870	J	31000		1400		2500		480	J	21000	
Chrysene	1000	J	30000		1500		2800		3700	U	21000	
bis(2-Ethylhexyl)phthalate	1200	U	10000	U	1300	U	1500	U	3700	U	14000	U
Di-n-octylphthalate	520	UJ	10000	U	600	J	1500	U	3700	U	14000	U
Benzo(b)fluoranthene	850	J	24000		1200		2200		600	J	19000	
Benzo(k)fluoranthene	600	J	20000	J	1000	J	1800	J	390	J	12000	
Benzo(a)pyrene	800	J	26000		1100		2200		530	J	18000	
Indeno(1,2,3-cd)pyrene	430	J	13000		630		1200	J	330	J	7100	
Dibenz(a,h)anthracene	220	J	5900	J	250	J	520	J	3700	UJ	3300	J
Benzo(g,h,i)perylene	380	J	9900	J	900	J	900	J	380	J	5200	

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

CASE NO: 21820
SDG NO: AEY28

SITE: CATAMOUNT DYERS BENNINGTON, VT
LABORATORY: AQUATEC, INC.

EPA SAMPLE NUMBER:	AEY46	
SAMPLE LOCATION:	SD-08	
LABORATORY SAMPLE NUMBER:	216071	
SAMPLE TYPE:	Routine Sample	
MATRIX/ANALYSIS:	SOIL/LOW	
DILUTION FACTOR:	4.0	
DATE SAMPLED:	03/29/94	
DATE EXTRACTED:	04/10/94	
DATE ANALYZED:	04/20/94	
PERCENT SOLID:	51	
BNA		
Phenol	2600	U
bis(2-Chloroethyl) ether	2600	U
2-Chlorophenol	2600	U
1,3-Dichlorobenzene	2600	U
1,4-Dichlorobenzene	2600	U
1,2-Dichlorobenzene	2600	U
2-Methylphenol	2600	U
2,2'-oxybis(1-Chloropropane)	2600	UJ
4-Methylphenol	2600	U
N-Nitroso-di-n-propylamine	2600	U
Hexachloroethane	2600	U
Nitrobenzene	2600	U
Isophorone	2600	U
2-Nitrophenol	2600	U
2,4-Dimethylphenol	2600	U
bis(2-Chloroethoxy) methane	2600	U
2,4-Dichlorophenol	2600	U
1,2,4-Trichlorobenzene	2600	U
Naphthalene	2700	J
4-Chloroaniline	2600	U
Hexachlorobutadiene	2600	U
4-Chloro-3-methylphenol	2600	U
2-Methylnaphthalene	1100	J
Hexachlorocyclopentadiene	2600	U
2,4,6-Trichlorophenol	2600	U
2,4,5-Trichlorophenol	6300	U
2-Chloronaphthalene	2600	U
2-Nitroaniline	6300	U
Dimethylphthalate	2600	U
Acenaphthylene	2600	U
2,6-Dinitrotoluene	2600	U
3-Nitroaniline	6300	U
Acenaphthene	3900	J
2,4-Dinitrophenol	6300	U
4-Nitrophenol	6300	U
Dibenzofuran	580	J
2,4-Dinitrotoluene	2600	U
Diethylphthalate	2600	U
4-Chlorophenyl-phenyl ether	2600	U
Fluorene	1200	J
4-Nitroaniline	6300	U
4,6-Dinitro-2-methylphenol	6300	U
N-nitrosodiphenylamine	2600	U
4-Bromophenyl-phenylether	2600	U
Hexachlorobenzene	2600	UJ
Pentachlorophenol	6300	U
Phenanthrene	4400	J
Anthracene	800	J
Carbazole	350	J
Di-n-butylphthalate	2600	U
Fluoranthene	3600	J
Pyrene	3900	J
Butylbenzylphthalate	2600	U
3,3'-Dichlorobenzidine	2600	U
Benzo(a)anthracene	1800	J
Chrysene	2000	J
bis(2-Ethylhexyl)phthalate	2600	U
Di-n-octylphthalate	2600	U
Benzo(b)fluoranthene	1300	J
Benzo(k)fluoranthene	1700	J
Benzo(a)pyrene	1700	J
Indeno(1,2,3-cd)pyrene	1000	J
Dibenz(a,h)anthracene	420	J
Benzo(g,h,i)perylene	860	J

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

PESTICIDE/PCB AQUEOUS ANALYSIS

CASE NO: 21820
SDG NO: AEY28

SITE: CATAMOUNT DYERS BENNINGTON, VT
LABORATORY: AQUATEC, INC.

EPA SAMPLE NUMBER:	AEY29		AEY30					
SAMPLE LOCATION:	EB-SD		EB-SS					
LABORATORY SAMPLE NUMBER:	216054		216055					
SAMPLE TYPE:	Routine Sample		Routine Sample					
MATRIX/ANALYSIS:	WATER/LOW		WATER/LOW					
DILUTION FACTOR:	1.0		1.0					
DATE SAMPLED:	03/29/94		03/29/94					
DATE EXTRACTED:	04/06/94		04/06/94					
DATE ANALYZED:	05/04/94		05/04/94					
PEST/PCB								
alpha-BHC	0.05	UJ	0.05	UJ				
beta-BHC	0.05	UJ	0.05	UJ				
delta-BHC	0.05	UJ	0.05	UJ				
gamma-BHC	0.05	UJ	0.05	UJ				
Heptachlor	0.05	UJ	0.05	UJ				
Aldrin	0.05	UJ	0.05	UJ				
Heptachlor epoxide	0.05	UJ	0.05	UJ				
Endosulfan I	0.05	UJ	0.05	UJ				
Dieldrin	0.10	UJ	0.10	UJ				
4,4-DDE	0.10	UJ	0.10	UJ				
Endrin	0.10	UJ	0.10	UJ				
Endosulfan II	0.10	UJ	0.10	UJ				
4,4-DDD	0.10	UJ	0.10	UJ				
Endosulfan sulfate	0.10	UJ	0.10	UJ				
4,4-DDT	0.10	UJ	0.10	UJ				
Methoxychlor	0.50	UJ	0.50	UJ				
Endrin ketone	0.10	UJ	0.10	UJ				
Endrin aldehyde	0.10	UJ	0.10	UJ				
alpha-Chlordane	0.05	UJ	0.05	UJ				
gamma-Chlordane	0.05	UJ	0.05	UJ				
Toxaphene	5.0	UJ	5.0	UJ				
Aroclor-1016	1.0	UJ	1.0	UJ				
Aroclor-1221	2.0	UJ	2.0	UJ				
Aroclor-1232	1.0	UJ	1.0	UJ				
Aroclor-1242	1.0	UJ	1.0	UJ				
Aroclor-1248	1.0	UJ	1.0	UJ				
Aroclor-1254	1.0	UJ	1.0	UJ				
Aroclor-1260	1.0	UJ	1.0	UJ				

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

PESTICIDE/PCB SOIL ANALYSIS

CASE NO: 21820
SDG NO: AEY28

SITE: CATAMOUNT DYERS BENNINGTON, VT
LABORATORY: AQUATEC, INC.

EPA SAMPLE NUMBER:	AEY34		AEY35		AEY36		AEY37		AEY38		AEY39	
SAMPLE LOCATION:	SS-01		SS-02		SS-03		SS-04		SS-05		SD-01	
LABORATORY SAMPLE NUMBER:	216059		216060		216061		216062		216063		216064	
SAMPLE TYPE:	Routine Sample		Routine Sample		Routine Sample		Routine Sample		Routine Sample		Routine Sample	
MATRIX/ANALYSIS:	SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW	
DILUTION FACTOR:	1.0		10.0		1.0		1.0		1.0		1.0	
DATE SAMPLED:	03/29/94		03/29/94		03/29/94		03/29/94		03/29/94		03/29/94	
DATE EXTRACTED:	04/10/94		04/10/94		04/10/94		04/10/94		04/10/94		04/10/94	
DATE ANALYZED:	05/04/94		05/04/94		05/04/94		05/04/94		05/04/94		05/04/94	
PERCENT SOLID:	74		88		89		89		89		79	
PEST/PCB												
alpha-BHC	2.3	U	19	U	1.9	U	1.9	U	1.9	U	2.2	U
beta-BHC	2.3	U		R	1.9	U	1.9	U	1.9	U	2.2	U
delta-BHC	2.3	U	19	U	1.9	U	1.9	U	1.8	J	2.2	U
gamma-BHC	2.3	U	19	U	1.9	U	1.9	U	1.9	U	2.2	U
Heptachlor	2.3	U	19	U	1.9	U	1.9	U	1.9	U	2.2	U
Aldrin	2.3	U	19	U	1.2	J	1.3	J	1.9	U	2.2	U
Heptachlor epoxide		R		R	1.9	U	1.9	U	1.9	U	2.2	U
Endosulfan I	5.7	U	1600		8.0		8.8		1.9	U	4.3	
Dieldrin	4.5	U	100		3.7	U	3.7	U	3.7	U	4.2	U
4,4'-DDE	8.0	UJ		R		R	3.7	U	7.5		4.2	U
Endrin	4.5	U		R	3.7	U		R		R	4.2	U
Endosulfan II	4.5	U	37	U	3.7	U	3.7	U		R	4.2	U
4,4'-DDD	4.5	U	37	U	3.7	U	3.7	U		R	4.2	U
Endosulfan sulfate	4.5	U		R	3.7	U	3.7	U	3.7	U	4.2	U
4,4'-DDT	8.1	U		R	3.7	U	5.4	U	3.7	U	4.2	U
Methoxychlor	23	U	190	U	19	U	19	U	19	U	22	U
Endrin ketone	4.5	U	37	U	3.7	U		R	3.7	U	4.2	U
Endrin aldehyde		R		R	3.7	U		R		R	4.2	U
alpha-Chlordane		R		R		R		R	1.9	U		
gamma-Chlordane	2.3	U	19	U	1.9	U	1.9	U		R	2.2	U
Toxaphene	230	U	1900	U	190	U	190	U	190	U	220	U
Aroclor-1016	45	U	370	U	37	U	37	U	38	U	42	U
Aroclor-1221	91	U	760	U	75	U	75	U	77	U	85	U
Aroclor-1232	45	U	370	U	37	U	37	U	38	U	42	U
Aroclor-1242	45	U	370	U	37	U	37	U	38	U	42	U
Aroclor-1248	45	U	370	U	37	U	37	U	38	U	42	U
Aroclor-1254	110		370	U	93		120		38	U	42	U
Aroclor-1260	45	U	370	U	37	U	37	U	88	J	42	U

FILENAME: AEY28.SDG DATE: 05/27/94 TIME:1200 CADRE 1.92

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

PESTICIDE/PCB SOIL ANALYSIS

CASE NO: 21820
SDG NO: AEY28

SITE: CATAMOUNT DYERS BENNINGTON, VT
LABORATORY: AQUATEC, INC.

EPA SAMPLE NUMBER:	AEY40		AEY41		AEY42		AEY43		AEY44		AEY45	
SAMPLE LOCATION:	SD-02		SD-03		SD-04		SD-05		SD-06		SD-07	
LABORATORY SAMPLE NUMBER:	216065		216066		216067		216068		216069		216070	
SAMPLE TYPE:	Routine Sample		Routine Sample		Routine Sample		Routine Sample		Routine Sample		Routine Sample	
MATRIX/ANALYSIS:	SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW		SOIL/LOW	
DILUTION FACTOR:	1.0		10.0		1.0		1.0		2.0		20.0	
DATE SAMPLED:	03/29/94		03/29/94		03/29/94		03/29/94		03/29/94		03/29/94	
DATE EXTRACTED:	04/10/94		04/10/94		04/10/94		04/10/94		04/10/94		04/10/94	
DATE ANALYZED:	05/04/94		05/07/94		05/04/94		05/04/94		05/07/94		05/07/94	
PERCENT SOLID:	63		78		71		71		60		47	
PEST/PCB												
alpha-BHC	2.7	U	22	U	2.4	U	2.4	U	5.7	U	18	U
beta-BHC	2.7	U	22	U	2.4	U	2.4	U	5.7	U	18	U
delta-BHC	2.7	U	22	U	2.4	U	2.4	U	5.7	U	18	U
gamma-BHC	2.7	U	22	U	2.4	U	2.4	U	5.7	U	18	U
Heptachlor	2.7	U	22	U	2.4	U	2.4	U	5.7	U	18	U
Aldrin	2.7	U	22	U	2.4	U	2.4	U	5.7	U	23	
Heptachlor epoxide	2.7	U	22	U	2.4	U	2.4	U		R	18	U
Endosulfan I	10	U	170	UJ	7.9	U	14		7.6	J	70	U
Dieldrin	5.2	U	42	U	4.6	U	4.6	U	11	U	35	U
4,4'-DDE		R	42	U	4.6	U	4.6	U	21	J	110	
Endrin	5.2	U	42	U	4.6	U	4.6	U	11	U	31	U
Endosulfan II	5.2	U	26	J	4.6	U	4.6	U	11	U		R
4,4'-DDD	5.2	U	42	U	4.6	U	4.6	U	71	J	280	
Endosulfan sulfate	5.2	U	42	U	4.6	U	4.6	U	11	U	35	U
4,4'-DDT	5.2	U	42	U	4.6	U	4.6	U	31			R
Methoxychlor	27	U	220	U	24	U	24	U	57	U	180	U
Endrin ketone	5.2	U	42	U	4.6	U	4.6	U	11	U	48	U
Endrin aldehyde		R	42	U		R		R	11	U		R
alpha-Chlordane		R	66	R		R		R	5.7	U		R
gamma-Chlordane	2.7	U	22	U	2.4	U	1.5	J	3.6	J		R
Toxaphene	270	U	220	U	240	U	240	U	570	U	1800	U
Aroclor-1016	52	U	420	U	46	U	46	U	110	U	350	U
Aroclor-1221	110	U	860	U	94	U	94	U	220	U	710	U
Aroclor-1232	52	U	420	U	46	U	46	U	110	U	350	U
Aroclor-1242	52	U	420	U	46	U	46	U	110	U	400	U
Aroclor-1248	52	U	420	U	46	U	46	U	110	U	350	U
Aroclor-1254	52	U	420	U	46	U	46	U	110	U	1100	U
Aroclor-1260	49	J	420	U	44	J	52		100	J	370	U

FILENAME: AEY28.SDG DATE: 05/27/94 TIME:1200 CADRE 1.92

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

PESTICIDE/PCB SOIL ANALYSIS

CASE NO: 21820
SDG NO: AEY28

SITE: CATAMOUNT DYERS BENNINGTON, VT
LABORATORY: AQUATEC, INC.

EPA SAMPLE NUMBER:	AEY46						
SAMPLE LOCATION:	SD-08						
LABORATORY SAMPLE NUMBER:	216071						
SAMPLE TYPE:	Routine Sample						
MATRIX/ANALYSIS:	SOIL/LOW						
DILUTION FACTOR:	4.0						
DATE SAMPLED:	03/29/94						
DATE EXTRACTED:	04/10/94						
DATE ANALYZED:	05/04/94						
PERCENT SOLID:	51						
PEST/PCB							
alpha-BHC	3.3	U					
beta-BHC	3.3	U					
delta-BHC	3.3	U					
gamma-BHC	3.3	U					
Heptachlor	3.3	U					
Aldrin	3.3	U					
Heptachlor epoxide	3.3	U					
Endosulfan I	10	U					
Dieldrin	6.5	U					
4,4'-DDE	6.5	U					
Endrin	6.5	U					
Endosulfan II	6.5	U					
4,4'-DDD	6.5	U					
Endosulfan sulfate	6.5	U					
4,4'-DDT	6.5	U					
Methoxychlor	33	U					
Endrin ketone	6.5	U					
Endrin aldehyde	6.5	U					
alpha-Chlordane		R					
gamma-Chlordane	3.3	U					
Toxaphene	330	U					
Aroclor-1016	65	U					
Aroclor-1221	130	U					
Aroclor-1232	65	U					
Aroclor-1242	65	U					
Aroclor-1248	65	U					
Aroclor-1254	65	U					
Aroclor-1260	65	U					

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

ATTACHMENT B

Catamount Dyers

Inorganic Analytical Results and Sample Detection Limits
CDM Federal Programs Corporation

March 29, 1994
(sampling date)

Site: Catamount Dyers
Laboratory: Skinner and Sherman Labs., Inc.
Disk: 771023-DV03
File: 21820MS1.WK3

CLP INORGANIC ANALYSIS
CASE 21820, SDG MAEQ25
SOIL ANALYTICAL RESULTS (mg/Kg)

Sample Location		SS-01	SS-02	SS-03	SS-04	SS-05	SD-01	SD-02	SD-03	SD-06
Traffic Report Number		MAEQ25	MAEQ26	MAEQ27	MAEQ28	MAEQ29	MAEQ30	MAEQ31	MAEQ32	MAEQ33
Remarks					DUP MAEQ27					
Sampling Date		29-Mar-94	29-Mar-94	29-Mar-94	29-Mar-94	29-Mar-94	29-Mar-94	29-Mar-94	29-Mar-94	29-Mar-94
Percent Solid		73.3	86.2	88.1	87.9	88.9	77.9	73.4	78.0	70.3
Dilution Factor		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
INORGANIC ANALYTES										
Aluminum	P	3500 J	3010 J	4080 J	4100 J	2110 J	2520 J	2720 J	3580 J	3260 J
Antimony	P	2.8 U	2.3 U	2.8 U	2.4 U	2.4 U	2.7 U	2.7 U	2.6 U	2.9 U
Arsenic	P	8.7	7.6	10.7	10.3	6.4	3.1	2.5	6.3	5.4
Barium	P	87.8	62.0	64.5	42.4	19.4 J	86.1	23.2	92.2	28.2
Beryllium	P	0.21 U	0.38	0.18 U	0.18 U	0.18 U	0.20 U	0.20 U	0.19 U	0.21 U
Cadmium	P	0.38 U	0.22 U	0.22 U	0.22 U	0.22 U	0.25 U	0.25 U	0.24 U	0.27 U
Calcium	P	6860	20600	54500	56400	86900	18100	16800	14900	18900
Chromium	P	8.2	18.2	7.4	8.1	3.4 J	6.1 J	4.8 J	13.1	5.4 J
Cobalt	P	3.9	6.0	5.3	6.2	5.0	7.1	3.7	4.3	6.4
Copper	P	22.2	70.5	20.3	21.7	11.4	12.9	10.3	41.5	19.3
Iron	P	9860	19900	14000	13000	12900	12000	10400	15900	13900
Lead	P	136 J	140 J	32.4 J	255 J	13.4 J	35.9 J	52.7 J	97.5 J	115 J
Magnesium	P	2020	7910	18300	18700	35900	8590	6260	8420	8480
Manganese	P	202 J	265 J	434 J	393 J	583 J	535 J	129 J	223 J	109 J
Mercury	CV	0.25 J	0.96	1.3	1.5	0.05 U	0.07 J	0.29 J	0.73	0.34 J
Nickel	P	9.5	43.0	12.1	21.1	8.5	8.3	8.2	10.7	9.5
Potassium	P	550	506	428	441	226	263 U	339	398	343
Selenium	P	0.55 UJ	0.46 UJ	0.47 UJ	0.46 UJ	0.46 UJ	0.53 UJ	0.52 UJ	0.50 UJ	0.56 UJ
Silver	P	0.79 UJ	0.65 UJ	0.67 UJ	0.66 UJ	0.66 UJ	0.79 J	0.75 UJ	0.72 J	0.80 UJ
Sodium	P	367 U	339 U	312 U	328 UJ	281 UJ	326 U	325 U	319 U	330 U
Thallium	P	0.58 U	0.48 U	0.49 U	0.49 U	0.50 U	0.55 U	0.55 U	0.53 U	0.58 U
Vanadium	P	15.6	153	13.3	13.0	15.0	6.3	6.2	15.8	8.6
Zinc	P	116 J	294 J	59.8 J	60.9 J	278 J	89.9 J	72.0 J	110 J	118 J
Cyanide	AS	0.67 U	0.55 U	0.53 U	0.55 U	0.56 U	0.64 U	0.63 U	0.59 U	0.70 U

Analytical Method
P ICP
CV Cold Vapor
AS Semi-Automated Spectrophotometric Analysis

Sample Results are reported on dry weight basis.
J - The associated numerical value is an estimated quantity.
U - The analyte was not detected. The associated numerical value is the analyte detection limit.
UJ - The analyte was not detected. The analyte detection limit is an estimated value.
R - The datum was rejected.

Site: Catamount Dyers
Laboratory: Skinner and Sherman Labs., Inc.
Disk: 771023-DV03
File: 21820MS2.WK3

CLP INORGANIC ANALYSIS
CASE 21820, SDG MAEQ25
SOIL ANALYTICAL RESULTS (mg/Kg)

Sample Location		SD-05	SD-04	SD-07	SD-08
Traffic Report Number		MAEQ34	MAEQ35	MAEQ36	MAEQ37
Remarks			DUP MAEQ31		
Sampling Date		29-Mar-94	29-Mar-94	29-Mar-94	29-Mar-94
Percent Solid		72.4	67.3	50.8	56.8
Dilution Factor		1.0	1.0	1.0	1.0
INORGANIC ANALYTES					
Aluminum	P	2870 J	2800 J	4160 J	5560 J
Antimony	P	2.9 U	3.0 U	4.2 U	3.8 U
Arsenic	P	3.3	4.8	7.3	7.3
Barium	P	29.1	38.8	54.8	94.7
Beryllium	P	0.21 U	0.22 U	0.31 U	0.28 U
Cadmium	P	0.27 U	0.29 U	1.30 U	0.82 U
Calcium	P	14400	13500	13800	3430
Chromium	P	6.4 J	6.7 J	27.4	53.8
Cobalt	P	3.2 U	5.3	5.2	6.7
Copper	P	11.9	14.2	29.5	43.4
Iron	P	9160	11700	14800	15100
Lead	P	45.0 J	53.6 J	248 J	189 J
Magnesium	P	6530	6410	7960	2280
Manganese	P	197 J	1190 J	151 J	198 J
Mercury	CV	0.17 J	0.24 J	2.6	0.84
Nickel	P	6.7 U	11.1	11.5	11.7
Potassium	P	309	320 U	477 U	671
Selenium	P	0.56 UJ	0.59 UJ	0.82 UJ	1.4 J
Silver	P	0.80 UJ	0.95 J	1.5 J	1.4 J
Sodium	P	350 U	387 U	551 U	490 U
Thallium	P	0.59 U	0.62 U	0.86 U	0.77 U
Vanadium	P	6.8	6.4	16.8	11.3
Zinc	P	76.6 J	87.0 J	221 J	256 J
Cyanide	AS	0.69 U	0.72 U	0.91 U	0.87 U

Analytical Method
P ICP
CV Cold Vapor
AS Semi-Automated Spectrophotometric

Sample Results are reported on dry weight basis.
J - The associated numerical value is an estimated quantity.
U - The analyte was not detected. The associated numerical value is the analyte detection limit.
UJ - The analyte was not detected. The analyte detection limit is an estimated value.
R - The datum was

Site: Catamount Dyers
Laboratory: Skinner and Sherman Labs., Inc.
Disk: 771023-DV03
File: 21820MS3.WK3

CLP INORGANIC ANALYSIS
CASE NO. 21820, SDG NO. MAEQ25
AQUEOUS ANALYTICAL RESULTS (ug/L)

Sample Location				EB-SS	EB-SD
Traffic Report Number				MAEQ38	MAEQ39
Remarks				Equip. Blk	Equip. Blk
Sampling Date				29-Mar-94	29-Mar-94
Dilution Factor				1	1
INORGANIC ANALYTES		IDL (ug/L)	CRDL (ug/L)		
Aluminum	P	16.5	200	17.3	47.4
Antimony	P	10.8	60	10.8 U	10.8 U
Arsenic	P	1.5	10	1.5 U	1.5 U
Barium	P	3.1	200	3.1 U	3.1 U
Beryllium	P	0.8	5	0.8 U	0.8 U
Cadmium	P	1.0	5	1 U	1 U
Calcium	P	34.9	5000	200	203
Chromium	P	4.4	10	4.4 UJ	4.4 UJ
Cobalt	P	2.3	50	2.3 U	2.3 U
Copper	P	3.1	25	3.1 U	3.1 U
Iron	P	4.8	100	20.2	57.8
Lead	P	1.5	3	2.3 J	1.5 U
Magnesium	P	38.2	5000	89.1	109
Manganese	P	0.6	15	2	2.5
Mercury	CV	0.2	0.2	0.2 U	0.2 U
Nickel	P	4.5	40	4.5 U	5.2
Potassium	P	103.1	5000	116	254
Selenium	P	2.1	5	2.1 UJ	2.1 UJ
Silver	P	3.0	10	3 U	3 U
Sodium	P	20.2	5000	640	580
Thallium	P	2.2	10	2.2 U	2.2 U
Vanadium	P	2.6	50	2.6 U	2.6 U
Zinc	P	2.0	20	8.1	5.8
Cyanide	AS	10.0	10	10 U	10 U

Analytical Method
P ICP/Flame AA
CV Cold Vapor
AS Semi-Automated Spectrophotometric Analysis

J - The associated numerical value is an estimated quantity.
U - The compound was not detected. The associated numerical value is the sample detection limit.
UJ - The compound was not detected. The sample detection limit is an estimated value.
R - The datum was rejected.
IDL - Instrument Detection Limit.
CRDL - Contract Required Detection Limit.

Pg 4, #3

- Figure 1 does not depict the area around Bldg #19 as a zoned area as had been previously agreed by SVDC in a memo from P.B. to D.S. dated 5-20-92.

Pg 6, #1:

- drum removal has been accomplished by a contractor hired by the VT DEC.

Pg 11.

- What is the PP required for soil excavations shallower than 3'? Data do not support a difference for >3' vs. <3'. In any case, in the absence of PID readings or significant dust, respiratory protection may be unnecessary although certainly up to OSG.

- Clarify when level C would be required for construction of bldg?! This would seem unnecessary as long as there is no soil disturbance that might create exposure.

How do "action levels detailed on Pg 14 relate to PP standards in Section 6?

Pg 15, #2:

- What ~~~~ is the gravimetric analysis, and how will it be used in place of dust suppression?